MEDICAL WRITING

THE TECHNIC AND THE ART

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with the assistance of

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Preface

This book on medical writing represents the gradual evolution of theory and practice associated with the conduct of the editorial department of the American Medical Association for some 35 years When Dr George H Simmons became editor of *The Journal*, he began to accumulate various memorandums concerned with the technic of preparation of papers for publication which had been sent to the manuscript editors and his assistants Later I assisted him in preparing a manuscript on the 'Art and Practice of Medical Writing" The present volume constitutes an extensive revision of various previous editions together with much new material The new material has been developed largely as the result of the handling of thousands of manuscripts for *The Journal of the American Medical Association* and the special periodicals published by the Association

When manuscripts are accepted for publication in any of the periodicals published by the American Medical Association, they pass through the manuscript editing department Here the sizes of type to be used are indicated, the style of the diction is made to conform to the rules of the American Medical Association Press Most of the examples which appear in the pages that follow are selected from actual manuscripts received by the Association

The help of the following employees of the American Medical Association, whose suggestions also are incorporated in this book, is acknowledged with appreciation Marjorie Hutchins Moore, librarian, Mr F K Bryant, Dr Austin Smith, Secretary of the Council on Pharmacy and Chemistry, and Dr Howard Fox, editor emeritus of the *Archives of Dermatology and Syphilology*, who assisted in the preparation of the section on Latin terminology

Grateful acknowledgment is made also to Mr William Brown McNett, Art Director of The Blakiston Company, for his revision of the chapter on "Illustrations," together with the preparation of several new illustrations, and to Miss Laura E Moore, Manuscript Editor of The Blakiston Company, for the new chapter on "Indexing" and her revision of the chapters on "Preparation of the Manuscript" and "Proofreading"

MORRIS FISHBEIN, M D

Chicago
June 1948

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Introduction

Increasing organization in the field of medicine, as in every other field of human endeavor, has introduced advancement in the production of contributions to medical literature. Far too often, however, there still are physicians who prepare their contributions with a striving and agony and delay comparable to the delivery of human progeny by one untutored in the possible refinements associated with that performance. Many times the physician, asked to prepare for a local medical society a simple statement constituting a review of available knowledge, fails to inform himself concerning the innumerable agencies prepared to assist him in that simple task. He is likely to seat himself in his office or in his den at home, to surround himself with a liberal quantity of textbooks of more or less recent vintage and with periodicals selected at random, and then to endeavor to collate this material in a single evening so that ultimately it may resemble something of usefulness to the physicians on whom it will be inflicted. The first information that this physician should possess is the importance of the preparation of a systematic, orderly, scientific outline as the first step in the preparation of a manuscript on any subject. Even the elementary courses in English composition now teach the significance of having an introduction, a body, a summary and a conclusion to any type of scientific essay.

Professional writers in every field of literature have come to realize the importance of preparation of a manuscript for the publication to which it is meant to be sent. Some periodicals limit themselves to articles of 1,500 words, others are capable of handling large monographic presentations. *The Journal of the American Medical Association*, for instance, endeavors to limit practically all scientific contributions to six pages, or not more than 6,000 words (preferably to articles that are much shorter). In the instance of articles prepared for a specific purpose, greater latitude is granted. Obviously the physician who is

purely on the basis of mental gymnastics, claim that they have solved problems. Unfortunately, some physicians will discuss scientific questions concerning the fundamental and elementary principles of which they are entirely ignorant. Such papers usually are returned with the suggestion, circumspectly phrased, that an ounce of fact is worth a ton of theory. Every physician, of course, has the right to express opinions, to advance theories and to make known his discoveries. But the reader also has his rights, and the editor must regard these rights as paramount. The reader depends on the editor not to publish fiction for fact or fallacies which he—the reader—is not qualified to detect. The editor is supposed to have a knowledge of the author and his dependability that the reader cannot have.

Again and again a paper is received announcing the discovery of a bacterial causative agent for an apparently noninfectious disease. If the author is a man of well earned national repute and a frequent contributor to medical literature, consideration must be given to the publication. But far more harm is done in the publication of fallacious matter than in procrastinating with, or in rejecting, a dozen papers offering new theories and new evidence which may be of value but which are not convincing.

Often a writer wishes to bring his manuscript personally to the editor and to stand by while the editor reads, with explanations of portions that the editor may not understand. Authors should remember that they cannot personally accompany each copy of the periodical to each subscriber.

The Medical Society Address. One of the chief causes of overabundance of medical periodical literature undoubtedly is the publication of papers that were written not for publication but to be read before a medical society. A large percentage of articles in medical journals are of this type. Frequently such articles are based on textbooks or on easily accessible literature and do not contain original observation, new thought or record of experience. They may review a subject in a more or less complete form and thus be useful to read before a society, since they constitute a basis for a general discussion, but they may not be worth publishing. As a rule, they are not so well thought out nor so carefully written as are papers prepared especially

for printing Thus they do not elevate the tone of periodical literature or add to the knowledge of scientific medicine The demand of medical societies for contributions to their programs is the only excuse that may be offered for the deficiencies of such manuscripts

Specialists or consultants from the city frequently are invited by the smaller medical societies to present papers, which in many cases are likely to be better prepared than those of members of the society, whose usual purpose is merely to open a discussion The visitor is anxious to make a good impression He thus brings profit not only to others but also to himself Often, however, such papers may rightly be dubbed "potboilers" They, too, usually are written for reading, not for printing

Frequently the secretary of a medical society sends a paper to an editor with the statement that it was received enthusiastically by the members of the society, who voted that it be submitted for publication with their approval The editor finds, to his astonishment, that the paper is ungrammatical, discursive or verbose, or poorly organized, without sequence in argument or in arrangement of the subject The author's presentation, his inflections and, above all, his personality, were responsible for the success of the manuscript, the audience did not detect any fault and gave him applause and congratulations

If an author is to be the only speaker, his anxiety will be not as to how briefly he can present his subject but as to how he will fill the time he has been assigned Brevity, conciseness, the elimination of unnecessary details and the avoidance of branching off into unrelated and irrelevant subjects and of the use of colloquial language will not give him concern He will consider as appropriate and proper the relating of unimportant incidents in his experience for instance, a case report, an occasional aside and personal allusions In this he will be right But he will not be right if he submits his article for publication without modification Common courtesy compels his audience to remain and listen until he concludes his address, but if his paper is prolix or rambling it will have few readers When the paper is published the personal equation does not enter and the courtesy of the listener has vanished

At least 10 per cent of the manuscripts rejected by *The Journal* have

been returned because they have been prepared for reading before a society and evidently submitted for publication without revision A manuscript that is fit to read is sometimes fit to print, but a manuscript that is fit to print is always fit to read

Length An occasional reason for the return of a manuscript is its length Like Einstein's theory as to space and time, however, length in this case is a matter of relativity A paper of 500 words may be long, one of 5,000 may be short The primary consideration is whether the material justifies the length Usually manuscripts are unnecessarily long because of easily avoidable faults in construction, such as rambling, verbosity and diffuseness

A STANDARD

Manuscripts therefore, are rejected by discriminating editors for various reasons relating to the suitability of the material and to its general construction Of these, by far the most important is the material, if the contribution is of value, other faults are susceptible of correction

A manuscript should be suited to its audience One easily intelligible and interesting to biologic chemists may have little appeal to otolaryngologists The details of a new technic for estimating uric acid will attract few general practitioners, who do not have the apparatus for performing the technic

As a standard for judging the value of the material embodied in a manuscript, that set for papers presented in the various sections of the Scientific Assembly of the American Medical Association may be significant This standard provides that papers must (1) contain and establish positively new facts, modes of practice or principles of real value, (2) embody the results of well advised, original researches or (3) present so complete a review of the facts concerning any particular subject as to enable the reader to deduce therefrom legitimate, important conclusions

2

Style

James Huneker said "Style cannot be taught A good style is direct, plain and simple The writer's keyboard is that humble camel, the dictionary" Quiller Couch said it differently "Style in writing is much the same thing as good manners in other human intercourse"

After many years' experience in editing the *Atlantic Monthly*, Mr Ellery Sedgwick made some comments on style which are worthy of quotation "Style," he said, "varies with every temperament Sometimes it is torrential, sometimes combative Occasionally it is achieved through a certain parsimony in words In a satirical passage understatement always tells"

FINE, OR FANCY, WRITING

Whenever a writer feels an impulse to perpetrate a piece of exceptionally fancy writing he should obey it but should delete what he has written before sending the manuscript to press "Fine writing" is not especially a fault of medical literature, yet it occurs with amazing frequency Following are examples from manuscripts submitted for publication

> The pragmatic verity of this physiological concept of disease is established by its usefulness —with functional integrity our goal the no thoroughfare of unattainable structural integrity leaves us no longer at a therapeutic non plus

The above sounds like an erudite pronouncement but does it mean anything?

> But what of the child? Who has championed its rights? Summoned against its will or without its consent into this world of trouble pain sickness and finally death what Rousseau or Voltaire shall sound the tocsin, and call upon the infant muling and puking in the nurse's arms, to demand that its own mother shall give it that lactic fluid that is its primal right Bid it howl like all the heads of Cerberus against being condemned to partake of milk of cerulean hue contaminated by *Bacillus bulgaricus* prescribed by some adolescent and ardent disciple of Aesculapius What Danton or Robespierre shall band together the sansculotte toddlers so that they may not be torn from the kindly face of mother earth washed and dressed and sent to kindergarten where all of their play is so scientifically arranged by followers of Pestalozzi and Froebel

that good fairies are unknown to them and a "primrose beside a mossy bank, is to them but a primrose nothing more' Where they are taught like the clown in Lady Browning's poem, ' to pick simples, turning a broad back to the glory of the stars"

The author meant this seriously, for he wished to promote nursing of babies by their mothers It was part of a presidential address before a serious gathering and apparently was accumulated largely from Bartlett's "Familiar Quotations"

The specificity and mathematical exactness of its effects in given dosages of which Ehrlich dreamed has gone glimmering among the pitfalls of spirochetal individuality and variation in human susceptibility

Here the error is not so obvious, it lies in the use of words which sound extraordinarily well but which do not apply and therefore are confusing Note "glimmering" and "pitfalls"

A florid, roseate style, full of polysyllabic, metaphorical phraseology distracts the reader's attention Seldom is it necessary in scientific writing to employ other than simple English terms to express an idea or to state a fact The medical reader is acquainted with technical terms, but advantage should not be taken of this to make the sentence unduly polysyllabic Particularly bad is the use of literary allusions to give the impression of learning especially when the allusions are incorrect or have no direct relation to the subject discussed For example

The neurologist with all of his knowledge of minutest anatomy, was for years like the man who stood on the bridge at midnight," not dreaming the dreams of a Longfellow but soliloquizing after the manner of the cynic on the vanity of all earthly things when lo the voice of the syphilographer first cried from out of the darkness Fear not, for I am with you always'

The following statement was submitted exactly as here set forth, with the request that it be published as written or returned to its author

By septaecemia I mean any virulent infection where pathogenic organisms together with their toxines invade the constitution septic blood poison not less no other

I speak for free and unlimited drainage, as free and unlimited as successful fortification against the savage on rush of the enemy indicates These drainages should be of gause soaked in pure iodine They should be renewed fre

quently until victory is assured Pure, full strength iodine brought thus to impregnate the infected area, will diffuse itself as will no other remedy except terpentine, which is its only legitimate substitute This brings it into close hand to-hand combat with the invading enemy, they are immediately destroyed and there toxines nutralized Iodine is so far superior to any other remedy in this conflict, that none other need be mentioned It is the Field Marshall, the General Grant of such battles The best of any other remedy save terpentine, it is to iodine in such battles as a popgun is to a machine gun

It was returned!

And here a dermatologist, confronted by a request for an address on a special occasion, took his pen in hand, tore up his books on rhetoric and grammar and spoke freely

When Richet, whose talents were capitalized by the winnings of a Mediterranean gambler instead of by the sanctified swag of a field marshal of industry, discovered the nature of anaphylaxis, he started medical imagination on another flight into the hectic realms of hit or miss The phenomenon he discovered was definite It meant something and still does But the lily has been gilded by countless clumsy brushes, and the ultimate daub is allergy, God save the mark, as interpreted and applied today The metaphors in this paragraph have been mixed intentionally in order to symbolize how confused a simple thing can become when the human mind strikes its stride For a moment let us travel backwards the path of medical history, and note the sign posts First a philosophy based on the humors which colored etiological concepts until the middle ages Then the great intellectual jolt by Harvey, a reveille that bounced Galenism out of its ancestral coma Thereafter a scramble of ideas preeminently the doctrine of the diathesis, gouty in England, dartrous in France Another jolt, Pasteur, another, Virchow, another, Ehrlich Parasites, cell pathology, immunity! Is it remarkable that the medical world went crazy? And then Richet

And in the train of all these, first a germ for every illness, then a cell change for every nuance of illness, then an antibody in no man's land attempting a truce between the parasite and cell, to the ultimate victory of health then a catchpenny word, catchpenny because a great idea, that of anaphylaxis, was Kiwanised out of all recognition by the Rotarian minded in a world wide Gopher Prairie, while the instructed could only sit back in stunned contemplation But a bit of optimism arose in them as they mused with Villon, "where are the snows of yesteryear?

And these snows, what are they? Humoral pathology in all its classic ingenuousness, the miasma, the mesmeric moon, allopathy, homeopathy, the spleen, black bile, yellow bile, dark blood, phlegm, the diatheses, malaria, idiosyncrasy, susceptibility, hypersusceptibility, all once were dignified in speculative etiology Where are they today? And tomorrow, where will be focal infections, where, allergy? "Non omnis moriar," sang Horace, nor will these

either entirely die, but when they have survived the purgatory of misconstruction, their lambent spirits, resurrected, will lead medicine onward after the fools and opportunists have had their fling

If ever a subject warranted such hyperbole, allergy would, but one's mind and ears have become hypersensitive to hyperbole

Among typical violations of the rules against fine writing are the following usages

"Gentleman" instead of "man "
"Inaugurate" instead of "begin "
"The patient sustained an injury" instead of "The patient was injured "
"Canine" instead of "dog '

VERBOSITY

Verbosity is a blemish in the writing of most people—one that makes reading tedious, mars diction and wastes space This fault can be overcome easily, but in most instances not efficiently until after the paper has been written Unless you have tried it, you will be astonished at the number of words, phrases, clauses, sentences and, occasionally, paragraphs that can be deleted without affecting the meaning Deletions of unnecessary words always improve grammatical construction and style of expression and facilitate reading with understanding

Quiller-Couch, in his book entitled "On the Art of Writing,"[1] devoted a chapter to verbiage Here is one of his illustrations·

A clerk of a Board of Guardians had to record a minute relative to the burial of a pauper The minute reads

' In the case of John Jenkins, deceased, the coffin provided was of the usual character "

Sir Arthur pulled the sentence to pieces It is superfluous to say that Jenkins is deceased; the fact that he needs a coffin is sufficient evidence. "In the case of" is superfluous, for Jenkins did not have a case; he had, and needed, only a coffin The coffin was not "of the usual character," for coffins have no character. The clerk should have said: "John Jenkins was provided with the usual coffin "

An article by A G Macdonell, published in the London *Lancet*,

[1] Quiller-Couch, Arthur On the Art of Writing, New York, G P Putnam's Sons, 1916

complimented Mr Winston Churchill, who in an interval between organizing the defense of the British Empire and winning the war, found time to send a little memorandum to his colleagues in the Government, asking them to alter their style of writing the English language In his letter Mr Churchill insisted that all official documents and memorandums should be short He wrote "Let us have an end to such phrases as 'It is also of importance to bear in mind the following considerations,' and again, 'consideration should be given to the possibility of carrying into effect ' '

Mr Macdonell continued, quoting " 'the answer is in the affirmative' will now have to give place to the old-fashioned Anglo Saxon word 'yes' The phrase, 'considering all the circumstances, it would probably be correct to answer this question in a contrary fashion,' will have to give place to the old simple 'no'

"What a lot of beautiful phrases are going to be scrapped because of the Prime Minister," said Mr Macdonell " 'With regard to the question as to whether,' for example That will have to go 'In view of all the circumstances arising in and from ' That is another Then there is, 'While admitting that the opinions expressed in our letter of the 24th ult undoubtedly were expressed in that letter, we cannot admit that those opinions were in any way binding on anyone connected with this department' "

Here are specimens from real life—from manuscripts submitted for publication in *The Journal*

> I do not hesitate to say that in my opinion the gland in this case should not have been removed

The first seven words are space takers, the author makes his statement and the reader cares not whether he hesitated or did not hesitate in making it The shorter sentence, "In this case, in my opinion, the gland should not have been removed" was printed Possibly "in my opinion" also might have been deleted

This from another author

> It has been a mooted question in the minds of microbiologists whether the gonococcus possesses a capsule

either entirely die, but when they have survived the purgatory of misconstruction, their lambent spirits, resurrected, will lead medicine onward after the fools and opportunists have had their fling

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POOR GRAMMAR

The modern physician presumably has had the advantage of education in a university When, therefore, an editor receives a manuscript from a physician in which sentence after sentence reveals grammatical faults that would disgrace a seventh grade student, he must surmise that the author has failed to give the writing of his article proper attention

Here are some examples from manuscripts

> In meningococcic meningitis the optic nerve is involved as a perineuritis there is not a papilloedema in contradistinction to the papilloedema the result of pressure from distention of the optic prolongation of the third ventricle pressing on the chiasmal cystern as occurs in meningitis of pyogenic origin

> In general the larger abscesses had the higher counts with one exception 23 days after an unoperated appendicitis with 14 400 white blood cells and 3,000 cc of pus

> There were four cases of appendicitis, none of which had been operated except for a pelvic abscess in one

> Medulloblastomas develop almost invariably in children taking their origin just over the fourth ventricle

> Scabies is also a frequency with the Negro for he fails to realize the severity and the laxity of consulting a physician resulting in rapid and wide dissemination of this highly contagious parasitic skin infection to others and in many instances the starting of an epidemic

> Her pelvis had been injured by being thrown from a motorcycle

> Williams states that he induced the animals to take the hydrocarbon by licking it off a glass rod

Here is a specimen of highly confused grammar from a chairman s address before one of the scientific sections of the American Medical Association

> We have had a sister specialized field, that of Ophthalmology Very few of the older men still practicing but whom earlier in their careers did not embrace both fields and I am not sure but when after they gravitated to one or the other they were not better men for having at one time applied their knowledge to both. There is something to be said against narrowing one s horizon too much This may be debatable but there is an economic side that is not to be disputed There are communities which are entitled to good service but are not large enough to support physicians devoting their attention to only ophthalmology or otolaryngology Statistical studies are lacking but the

The difference between a mooted question and one that is not mooted is problematic "In the minds of microbiologists" carries the idea that only microbiologists are concerned The sentence was improved by divesting it of verbiage, and when printed it read

> It has been a question whether the gonococcus possesses a capsule

The purist would have modified this still more and mentioned the microbiologist, making it read

> Microbiologists question whether the gonococcus possesses a capsule

This from an article describing an apparatus

> Physicians who have been using radium needles will readily appreciate the difficulties encountered in threading them

"Who have been," "will readily" and "encountered" were deleted, and the sentence revised to read

> Physicians who use radium needles realize the difficulty of threading them

The introduction to a case report read

> The following case is reported on account of the unusual occurrence of *Ascaris lumbricoides* in an adult of sufficient quantity to cause obstruction of small intestine, necessitating resection of intestine
>
> Miss R of A———, Ala , referred to me by Dr M S of ———, aged 36, single admitted to the hospital at Albany Ala Nov 6, 1947, suffering with intense pain in the abdomen in the right hypochondriac region She was a poorly nourished woman and suffering great shock and presented all the symptoms of an intestinal obstruction

The first paragraph could be omitted by entitling the paper "*Ascaris lumbricoides* Causing Obstruction of Intestine in an Adult Report of a Case in Which Resection Was Necessary"

The report contains a large number of unnecessary words, from the point of view both of good writing and of facts necessary to adequate presentation With the unnecessary words bracketed for omission, the report appears

> Miss R [of A——— Ala referred to me by Dr M S of ———] aged 36, [single, admitted to the hospital at Albany, Ala] *was seen on* Nov 6, 1947, suffering with [intense] *abdominal* pain in the right hypochondriac region, [She was a poorly nourished woman and suffering great shock and presented all the symptoms of] *apparently due to* intestinal obstruction

Most common among grammatical errors found in articles submitted for publication are the following

Affect and Effect. These two words frequently are interchanged "Affect" means *to act on*, "effect," *to bring about*

The following quotations are from an editorial by William H Woglom in *Cancer Research* 2 846 (Dec) 1942

Question as to Fowler calls this an ugly and needless formula

The question arises as to whether the tumors were caused by the injections [Wrong]
The question arises whether or not the tumors were caused by the injections [Right]

As large, or larger, than This is a common fallacy A moment s reflection will show that when the little afterthought and its enclosing commas have been deleted, as large, or larger, than a plum" becomes "as large than a plum,' which is manifestly absurd The correct expression is ' as large as, or larger than, a plum " This paragraph does not condone the careless habit of comparing the size of a lesion with that of some familiar object Actual dimensions expressed in the metric system, are, of course, preferred

Different than The expression ' different than" enjoys an enormous popularity, nevertheless it is wrong "Different from' is right

Restrictive and Nonrestrictive Elements Woolley offers a useful rule for determining whether a given clause is nonrestrictive (may be set off by commas) or restrictive (must not be set off by commas) He says that if the main assertion of the sentence retains its meaning when the clause is omitted, the clause is nonrestrictive But if the omission changes the sense of the main assertion, the clause is restrictive

"That" is never used except in a restrictive sense; "which" may be used in either a restrictive or a nonrestrictive sense

With and By. These are often used interchangeably "With ' should be used in speaking of inanimate objects and "by" in referring to animate agents

CORRELATIVES

Conjunctions that are used in pairs are called correlatives Examples are not only but also , both and either or , neither nor , not or , whether or

These conjunctions should be followed by parallel elements, if a predicate follows one, a predicate should follow the other If a prep-

ositional phrase follows one, a prepositional phrase should follow the other

The sentence "He was not only courteous to rich customers but also to poor ones" is faulty, as pointed out by Greever and Jones in their "Handbook of Writing" The phrases intended to be balanced against each other are "to rich customers" and "to poor ones" Instead the word "courteous" is balanced against "to poor ones" The correct form is "He was courteous not only to rich customers but also to poor ones"

Incorrect is the following "She could neither make up her mind to go nor could she decide to stay." The correct form is "She could neither make up her mind to go nor decide to stay" [Or] "She could not make up her mind either to go or to stay"

One should not write "I talked both with Brown and Miller" One conjunction is followed by a preposition and the other by a noun Correct usage is "I talked with both Brown and Miller" [Or] "I talked both with Brown and with Miller"

SLANG

Medicine is a dignified science The attitude of the medical profession and of the public toward a scientific paper is dependent largely on the spirit in which the paper is written Much of the dignity accruing to medicine today is dependent on the fact that physicians usually have presented their contributions in language suited to the subject Few editors care to publish discussions of serious matters offered in a tone of levity. The following are examples from papers submitted to *The Journal*, indicating that the language of the street or of the preparation room is not suited to the discussion of surgical technic or of medical practice

> We have long passed the stage where any operation is considered a success if the patient survives, and in this particular one, where lots of blood and two or three chunks of tissue extracted from the patient's pharynx means good throat surgery
>
> A surgeon may be a "whiz" in the abdomen or in grafting bones, but a proverbial "bull in a china shop" in the throat
>
> The G U man has appropriated the term "syphilis" but the fact that the initial lesion is frequently on the genitals does not make the disease other than systemic

He will not attempt an iridectomy or cataract extraction, but seemingly feels "T & A's are 'duck soup'" where as a matter of fact the finished specialist realizes there is little difference in the skill required for all when well done

I recall one of my first stricture cases (a woman) who had gone the rounds for three years She spent a week in a hospital in Richmond, seeking a diagnosis She did not have symptoms referable to the urinary tract and her physician did not cystoscope her She then went to Asheville for a six weeks dietary treatment, and so on She finally came to one of my associates, who requested cystoscopy We were unable to get a filiform into the right ureter We cystoscoped her every day for five days, finally getting a No 2 olive tipped bougie to enter

This was a strangulated affair of four days duration

KEEPING SAME POINT OF VIEW THROUGHOUT PAPER

Tenses Writers often skip lightly from one tense to another, even in the same paragraph, and not infrequently confuse the reader Furthermore, Woglom emphasizes that good reason does not exist for describing experiments in the past tense and microscopic morphology in the present, though this is common practice Perhaps safest is to keep to the past tense in all descriptive matter In the publications of the American Medical Association the past tense is used for verbs of saying or recording, except in reviews of the literature covering material published during only one year, in which the author may use the present tense if he prefers it and if he uses it consistently

A related difficulty arises with regard to the expressions "he believed" and "he believes" In many instances it is impossible to determine whether the view cited is still held and therefore whether "he believes" is correct "He believed" on the other hand, may leave the reader with the impression that the opinion has been abandoned In the publications of this press the difficulty is avoided as a rule by changing the verb of thinking to a verb of saying, so that, for instance "Brown considered" becomes "Brown expressed the opinion In reviews of recent literature in which the verbs of saying are in the present tense and in papers in which an author is discussing recent work by men whose opinions he obviously knows well, "he believes" is of course permissible

Tenses should be used consistently also throughout a case [illegible] a description of experiments Here also the past tense usually [illegible]

Singular and Plural Forms Serious misunderstanding as well as an impression that an author is careless may be caused by failure to retain the same approach throughout a paper, especially in regard to the use of singular and plural forms You begin by speaking of "the eye" and "the kidney" and later find yourself mentioning "the frontal lobes" and "the lungs " Often a manuscript editor in the office of the American Medical Association is confronted by sentences such as these "The fundus seemed normal " "In the scleras and corneas " When organs are spoken of in a general sense, they should be referred to consistently in either the singular or the plural, and when specific observations are described it should be stated whether one (if so, which) or both of the organs were examined or were affected

Even more confusion is caused by a paragraph such as the following, *which was taken from a manuscript received for publication*

> In the thorax the intercostal or phrenic nerves may give rise to a neurofibroma, these often attaining a considerable size The benignity of the tumor makes surgical removal a most satisfying procedure, and one who is familiar with operations on the thoracic wall and in the chest cavities has little difficulty in completely enucleating these growths An example of neurofibroma of an intercostal nerve is seen in case 21 The relative softness of the lungs or other intrathoracic structures often allows one of these neoplasms to readily expand and assume a great size Harrington has reported 14 cases of mediastinal or intrathoracic perineural fibroblastomata, and his success in treating these lesions again emphasizes the desirability of recognizing such benign growths and attempting surgical extirpation Of 46 various intrathoracic tumors removed at operation, this author classified 14 of them as of nerve sheath origin, and 10 of these occurred in the posterior mediastinum The presence of a neurofibroma in the posterior mediastinum and in the neck may lead to dumb-bell-shaped tumors which pass through into the spinal canal

A similar faulty construction, not quite so confusing but equally illogical and more frequent, follows

> In these cases the lesions [it is understood that there was one in each case] began on the face and extended downward, finally covering the neck and the chest

The author may argue that if there are cases there are also lesions, rather than a lesion But are there not also faces, necks and chests? Moreover, if another author should quote only this passage, the reader

of the quotation might be forced to consult the original article to determine whether more than one lesion was present in each case

There can be no confusion if the sentence reads

> In these cases the lesion began on the face and extended downward, finally covering the neck and the chest

USE OF NOUNS AS ADJECTIVES

The American Medical Association Press avoids excessive use of nouns as adjectives to modify other nouns This policy should not be interpreted as a series of ' Thou shalt not's" with regard to specific phrases We wish to combat the tendency to eliminate adjectives from the language by supplanting them with nouns The following excerpts from an article by Lord Dunsany in the *Atlantic Monthly*[2] state the problem admirably

> The decay that is affecting our language is taking place among adjectives so much so that many of these necessary things have already died One cannot prove that an adjective is dead merely because in so many hundred pages it never appears the proof is when the need of that particular adjective arises and it is not used a noun being thrown in to take its place as a sheet of paper may stop a hole in a window in the absence of a pane of glass
>
> If you read of a strange man in an expensive car, that is no proof that other adjectives equally suitable are dead but if you read of a mystery man in a luxury car that proves that the adjectives mysterious and luxurious have decayed away for no one would otherwise use this lumber of nouns There is of course no lack of meaning in a mystery man in a luxury car only a lack of grace I imagine that hundreds of things had names among savages a thousand years before those graces appeared by which the Romans for instance built their sentences and I think that the deepness of the German forests which the legions d d not easily penetrate is probably responsible for the German tendency to use heaps of nouns to this day a clumsiness unknown in France and Italy
>
> When meaning disappears from modern sentences is the moment that a third noun is added to the heap or even an honest adjective as for instance if we were to write a great luxury man it would not be quite clear whether we were intending a man who lived in great luxury or whether a luxury man of large size If instead of the adjective great we have yet another noun the confusion is l able to be even worse There are no landmarks to guide one through th s confusion for in a single copy of the *Times* I read two advertise ments the first of them spoke of best position seats —obviously the hyphen

[2] Dunsany Edward Decay in the language Atlantic Monthly 157 360 362 (March) 1936

which was not there, should be imagined between the first word and the second, but there are no rules for this clumsy game, because the other advertisement spoke of a "great equality myth," and in that case the hyphen had to be understood between the second word and the third

It may not be quite clear to my readers why the hyphen should have come in each case where I have said that it should, but I have had the advantage of reading the context, and have worked it out in that way The alternative to reading the context is to know exactly which of several ambiguities the writer intends with his row of nouns, and for this purpose you must obviously know just what he intends to say Does not this mean that in the language of jumbled nouns you can only say what everyone knows already? Then the writer with something new to say will not be understood, even when he has got a hearing

Two years ago, when a large body of Canadian writers visited London, I pointed out to them at a meeting in the Mansion House some of the symptoms of this decay, and the direction in which it was progressing I pointed out that instead of speaking of the English Eleven, which was playing cricket then against the Australians, they spoke of the England Eleven, evidently finding some quality in the noun that they could not perceive in the adjective, and I added that they spoke of the captain of this team as the England Eleven Captain, and that his selection was liable to be described as England Eleven Captain Selection, and that any difficulty in this selection might be written of nowadays as an England Eleven Captain Selection Difficulty I then warned this gathering of writers that, if they did not all exert themselves to put some check upon this particular decay, the time would come when people would be writing of an England Eleven Captain Selection Difficulty Rumor I hope that this day has not yet come, but we are hovering upon the brink of it, and the careful investigator may very likely be able to discover in modern writers a case of six nouns jostling each other, like lost railway trucks without couplings bumping each other noisily on a hill

Let us not look down towards what our language is coming to, for the drop is too giddy and we may lose our heads, but let us look up to the heights from which we have fallen and, by reading good writers of a few decades ago, see how far we have slithered in a very short time Those writers, if writing of the affairs of to-day, would have to learn a few new words, like "radiogram" and the noun "aerial," though they could teach us how to pronounce the latter word correctly on the other hand, a translation of any of their writings into the language that I am complaining of would show how much we have lost The opening lines of *Paradise Lost* might go, in prose, to-day something like this "Of the first man disobedience and the forbidden tree fruit, whose death taste brought on world mortality"—Milton was thirty-six years old when he wrote this—"and our all woe, sing, Heaven muse, who on the Horeb or Sinai mystery top inspired," etc

Take the word "weather" it was well enough understood by our ancestors, and had a big share in shaping our destinies, but nowadays the word is never used without being propped up and supported by the ridiculous word "con-

ditions" It makes me think of an old wall supported by a broom or a disused cupboard or the ruins of a rusty perambulator, yet you cannot harm a wall by propping it up with absurdities, whereas you can harm a word by such odds and ends A people that has never seen the word "weather" used without that old clothes prop leaning against it will soon be unable to recognize it when the rubbish is cleared away, and so a fine word will be lost to a people that surely has need of it Or can anybody show me a case where the words "weather conditions" have ever been written by anyone in which the plain honest word 'weather' did not say all that was needed? I will maintain that in one per cent of all the cases in which the words "weather conditions' are used the word "weather" is equally good alone, and that in ninety nine per cent of these cases it is better, leaving none at all in which the word "conditions" does not waste printer's ink

A dead adjective that I lament perhaps more than any other is the word "hostile," the disappearance of which throws the word "enemy' from its place to do the work of the lost adjective You read no more of the enemy's troops or the enemy's position, it would be the 'enemy troops" and the "enemy position", and such a line as Kipling's —

> When the guns of the enemy wheel into line,

would no longer be written One has only to read any history of any war prior to the Great War to see how a certain splendor has now been lost from such narratives by the disappearance of the enemy himself, his presence being denoted only by this false adjective, doing work that does not properly belong to it

ACQUIRING A GOOD STYLE

The formula for acquiring a good literary style has two ingredients reading and practice Extensive reading of the works of good writers invariably will increase the vocabulary and improve the style

A style that flows attractively from the pen comes only as the result of much practice "A well constructed phrase," said Flaubert, "adapts itself to the rhythm of respiration " Clauses and phrases of even length permit proper emphasis

Write and rewrite, rewrite again and then revise!

3

The Subject and the Material

A distinct change is apparent in the type of papers appearing in medical journals today as compared with those of 1905 The therapeutic articles of the past, replete with favorite prescriptions, have given way to scientific contributions on therapeutic methods, pharmacology, pathology, etiology, methods of diagnosis and prophylaxis The difference can be appreciated only by those who were in practice in the earlier period or by those who will compare the journals of that time with those of today

Dr Charles Singer,[1] in his essay on "Greek Biology and Its Relation to the Rise of Modern Biology," described a complete contribution of the *best type in modern scientific literature* "The author begins," said Singer, "by pointing out a gap in knowledge Having stated his problem, he reviews the efforts made by others to illumine this dark place in knowledge He points out some of their errors or decides to accept their work and base his own upon it Perhaps he distrusts their experiments or would like to re-interpret their results Having summarized their labours he details his own experiments and observations

"But he is not able to tell us all of these Space will not permit him to tell us how he embarked on many different lines of work and abandoned them as unprofitable or too difficult, nor anything of the months or years spent in merely repeating the experience of others He says no word of how he acquired and improved his experimental skill and technical experience He tells merely of those developments of his work that have yielded him results . . When by gradual steps he had at last reached, or perhaps with the instinct of genius had more quickly discerned, a profitable direction for his investigations, he reached after a time those conclusions which his final line of work has verified and rendered more exact It is this final

[1] Singer, Charles Greek Biology and Its Relation to the Rise of Modern Biology in Studies in the History and Method of Science Oxford England Clarendon Press 1921, vol 2 p 1

process of verification that he mainly describes in his article, and it is the details of this that occupy the bulk, perhaps nineteen-twentieths or more, of all that he has to say Then having described these verificatory experiments, he summarizes his conclusions in a short paragraph of a few lines "

TYPES OF ARTICLES

Medical articles may be classified in definite types, including

1 The case report
2 The description of a new instrument
3 The clinical note or suggestion
4 The review of literature
5 The essay
6 The report of research
7 The complete consideration of a single disease
8 The monograph
9 A combination of two or more of these types

The Case Report

The foundation of clinical medical literature is the case report The scientific level of the profession has risen so much in recent years that a physician hesitates to give a report of an interesting case simply as a case report, he thinks he must make an exhaustive survey of the literature Instead of a brief, practical report, he submits an unnecessarily exhaustive review which few, if any, care to read Often a mass of details, including unimportant, irrelevant and negative observations, is presented without regard to clearness of expression Usually, if the historical review appears to be unnecessary and the case is an interesting one, the author should simply publish his case report and omit the review of the literature A clinical report made with judgment and with the correct appreciation of relative values is always welcomed by both editor and reader

Technic of the Case Report A case report should tell its story in clear, straightforward, narrative style It should not be transcribed word for word from original records that were hastily jotted down at the time the various events occurred, the jerky, telegraphic style of the record sheet may result in actual padding For example

Patient, A178493, Giuseppe Roverano Age 35 years Color, white Nationality, Italian Occupation, laborer Condition, married Complaint, inflammatory rheumatism Entered Brown Hospital, Jan 17, 1948

A shorter and more satisfactory description would be

G R, an Italian laborer aged 35, married, entered the Brown Hospital on Jan 17, 1948, complaining of inflammatory rheumatism

Quoted Reports Laboratory and other reports made by someone other than the author which have not been published elsewhere should not be copied in their original form but should be edited to conform to the style of the rest of the case report Material which has been published should be quoted exactly unless there are obvious typographic or mechanical errors Whenever material is quoted, written permission for its publication should be obtained from the writer and the publisher

Negative Observations and Unnecessary Material. The hospital record number is not required in a case report While it may serve a purpose within the hospital to identify the case for the members of the staff, it means nothing to the reader Further, it may give rise to a false impression as to the number of cases which have been observed in the institution by the physician

Mention of observations that are unimportant or that do not bear on the clinical history of the case should be avoided Negative results are of value in few instances, and they should be cited only when necessary An author who reports a case of compound fracture of the femur need not trouble to say that the lips, throat and ears were normal If, however, you are reporting a case of arthritis, it may be worth while to say that examination of the heart did not yield observations of importance, because pathologic changes in the heart may be associated with arthritis "Mrs J J, married," is redundant, for "Mrs" indicates marriage, but "Mrs J J, a widow," conveys additional social information that may have some bearing on the case In a case report that was received by *The Journal of the American Medical Association*, the author concluded the personal history of the patient with the doubtfully important information, "This boy was named after the writer"

Elimination of all negative or irrelevant material from a report is a valuable exercise from the point of view not only of good English com-

position but also of scientific knowledge The physician who is well informed will not give all the minutiae of a normal blood count or of a normal differential leukocyte count He will not provide a perhaps highly entertaining but valueless account of the various illnesses suffered by all the members of the patient's family He will not say that the patient had the usual illnesses of childhood, but, if any of these illnesses had a bearing on the condition, he will state what the illness was and about when it occurred The elimination from the case report of nonessential material will make a clinical picture that will be as striking as a marble bas relief in its proper emphasis on various features and in its subduing of background

Here are some examples of irrelevant material included in case reports The irrelevancies are italicized

> *At 11 45 p m near the outskirts of a small village, 20 miles away,* an infant was born to a primiparous *mother on Thursday, Oct 14 1947 The delivery occurred on a trundle bed in a darkened corner of a room illuminated only with a single kerosene lamp* The *attending* physician *a rural practitioner, had been with many mothers under similar circumstances As he kneeled over to clamp cut and ligate the cord his hand* felt a mass lying on the front and side of the child s abdomen The mass was soft and pliable and *as he ran his experienced fingers over its surface* he located the cord emerging *directly* from the mass *itself*
>
> *He carried the child over to the lamp and to his amazement* there was present on its abdomen a large part of its intestine *It was readily seen and felt through the thin transparent membrane which close* inspection revealed *to be* the cord itself enor mously dilated The intestines protruded along the course of the cord *a distance of some* 5 or 6 inches The mass *itself* was the size of a large cocoanut
>
> This newly born baby was delivered in precipitate labor while the mother sat on the stool *supported one on either side by two neighboring women*
>
> *On my arrival at the t me (a private home) all indications pointed to very unusual circumstances—I hastily entered the home and found just such a condition as stated in my opening Collecting my wits included many things and wondering what step to make first while going throu a sterilizing process with the help of the husband who had arrived a short time previously I planned an examination to determine if the babe was delivered and if still alive The husband raised the mother sufficiently to afford* a hasty examina tion *which* revealed baby *was delivered and* was dead from drowning We placed them in a warm bed *the husband carrying the mother while I supported the babe This done* I hastily divided the Funis *Placed the babe in a warm room upon a table*

Nowhere are negative observations more frequently encountered than in the recapitulation of autopsy records Sometimes such reports are practically the transcript of the stenographer's record, dictated as the examination progressed In most instances it is sufficient to present

only the anatomic diagnosis, with all the pathologic observations, and then to give in detail the description of the particular pathologic changes with which the discussion is concerned

Confusion of Time A common fault in case reports is indefiniteness in sequence of events as to time it is illustrated in the following skeleton of a case report submitted for publication

> CASE 3 A D Feb 8 1947 Hairpin in the bladder and renal infection Girl 22 years old first seen three years ago Two years ago her kidney was explored A year ago this patient went to the city hospital Soon after this I heard of her as a patient with marked polyuria From the early part of the summer until August she had retention of urine and had to be catheterized Five weeks ago she allowed a friend to attempt catheterization I saw her three weeks ago and found the hairpin I was not then allowed to remove it On February 3 she told me that the day before she had had pain in the left renal region Examination next day showed marked cystitis The pin was removed Within four days the patient was discharged
>
> January 1948 Two weeks after leaving the hosp tal another pin was found in the bladder

And here is another example

> He was born and lived in Turkey until he was 12 when he came to the United States He spent two years in Boston and the remainder of the time in California He had malaria 10 years ago and typhoid two years ago About four years ago his skin began to itch whenever he became warm

As a paper may not be published for months after it is prepared, the time should be stated specifically instead of being referred to as three, five or nine months or years ago

Tense Tenses should be used consistently A frequent error occurs when the author follows a case report with a description of a pathologic specimen or of a section viewed under the microscope Often the history of the case is given in the past tense and the pathologic report in the present tense These should be uniform The simplest way usually is to use the past tense throughout

In the description of observations that have been continued, it is logical to regard the time of writing as the present and to say, for instance, "At the time of writing the patient is well'

In the summary of a paper, the present tense should be used, as in

the following sentence "A case of myxedema is reported, and the literature is reviewed"

Coined Abbreviations In many institutions it is customary to use certain abbreviations in case records, this is excusable, for it saves space and makes reference easy for those who know what the abbreviations mean In material for publication, however, the use of abbreviations should be avoided During the war, a craze for abbreviation developed, perhaps associated with the large amount of so-called paper work, an inevitable accompaniment of army life The general use of original or coined abbreviations should not be tolerated Such abbreviations as "W D & N" for "well developed and nourished," "H & L O K" signifying "heart and lungs normal" and "L L L N R" for "left lower lobe no rales" are an abomination The manuscript editor who is confronted with such hieroglyphics can sympathize with the diagnosis "G O K," which, it is said, appeared on many case records in hospitals during the war, signifying "God only knows" Abbreviations not in dictionaries or in ordinary textbooks are permissible only in tables, there, if not obvious, they should be explained in footnotes

Form of the Report The simple case report may begin at once with the history and record or, preferably, may be introduced with a statement of why the author considers it desirable to report the case If the latter method is followed, the author will aid the reader and the manuscript editor by clearly indicating the separation in the following manner

> There is no record of chronic poisoning from potassium nitrate in standard works on toxicology or therapeutics nor does a fairly extensive search of the literature reveal any report of such poisoning
>
> *REPORT OF CASE*
>
> A farmer aged 57 whose general health had always been excellent was first seen by me on Feb 20 1947 He appeared acutely ill

In the report of a case of any length, the description may be broken up by side headings Paragraphs may be devoted to the patient's history, family history physical examination, laboratory examination course results and if any postmortem observations

In longer manuscripts, in which several or many cases are briefly reported merely as a matter of record, a single paragraph may be given to each case

The Description of a New Instrument

Ordinarily it is sufficient to describe an instrument in as few words as possible, depending largely on the accompanying illustrations of the device or apparatus to tell the story A photograph of the device usually is better than a freehand drawing, although a drawing by a competent artist is more easily reproduced A diagrammatic line drawing and a photograph of the device in use generally are most satisfactory The publication of a description of an apparatus that has not been manufactured and used is to be condemned

The Clinical Note or Suggestion

In the course of his practice, a physician frequently discovers minor clinical signs and symptoms of importance, short cuts in procedure, bizarre occurrences or similar matters of general interest that are worth publishing They may not merit a thorough report, rather, they may be covered in letters to the editor or in brief clinical suggestions occupying a paragraph Such suggestions or practical paragraphs are read by almost every reader whereas many would pay little or no attention to a long article

The Review of Literature

One of the most valuable—and sometimes the most useless, depending on how it is prepared—types of contribution is the review of knowledge on a given subject If the review is made by one who is familiar with the literature, and who has had sufficient experience to select with judgment and to discard with even more care, the contribution may be important If, however, the work is done by an assistant who has been instructed to obtain references to the available literature on the subject and to arrange these in chronologic or some other order, it is likely to be a hodgepodge and of wearisome length It is manifestly impossible to abstract all the literature in the course of a brief article on such a subject as tuberculosis, syphilis or influenza during an epidemic

The Essay

Manuscripts of the essay type include presidential addresses, forecasts as to the future of medicine and discussions of the economic problems and the social status of the physician—more or less exhaustive discussions of selected subjects in which physicians are interested as citizens and as professional men rather than as scientists They are obviously more literary than the usual contributions, and the physician may allow himself a latitude in literary allusion, diction and personal reference not permissible in the ordinary scientific paper The published addresses of Sir William Osler, Sir Clifford Allbutt, S Weir Mitchell, Oliver Wendell Holmes, William S Thayer, Harvey Cushing, Da Costa and Berkeley Moynihan are examples of this type

The Report of Research

No better outline of the form to be followed in a report of medical research is available than that by Dr Charles Singer, described in the quotation at the beginning of this chapter Emphasis may be placed again on the necessity of rigid elimination of nonessentials The problem should be stated clearly, the literary references should bear directly on the problem, the protocols of experiments should include only experiments that yielded actual information, clinical records and autopsy reports should be pruned religiously, there should be a well organized summary, and the conclusions should be succinct and include only statements that are warranted by previous knowledge and the present observations

One of the most common faults is duplication Frequently a report of research is accompanied by extensive charts and tabulations that repeat material brought out in the text Often a paper is received in which the observations are fully stated in the prótocols of the experiments, summed up in a running account in the summary, restated and resummed up in extensive tables and again pictured graphically in intricate charts The procedure is much like presenting a diner with three desserts composed of strawberries fresh strawberries, strawberry preserves and strawberry pie

The Complete Consideration of a Single Disease

Textbooks have long since made familiar the logical sequence *definition, etiology, pathology, epidemiology, symptoms, diagnosis, differential diagnosis, prognosis, prophylaxis* and *treatment* From time to time it is desirable to take up a single disease and to consider it under all these headings Such a study may be made in the preparation of textbook material or of an article to be included in a system of medicine Again, the sudden outbreak in epidemic form of an unusual illness or even of some common disease may make it worth while to review the subject completely for periodical publication Ordinarily the writer will find it satisfactory to confine himself to the single phase of the disease which he wishes to discuss and on which he has something new to offer This caution may seem unnecessary, but many manuscripts are received in which the reporting of a single new observation has been made an occasion to repeat much material that is easily available in the ordinary textbook

The Monograph

A monograph is a special treatise on a single subject Usually after an author has made an extensive series of investigations on some topic, he desires to present all the material in a single publication In preparing a monograph, he will do well to outline all the material, in order to avoid duplication Only the special periodicals publish monographs, and because of their character the author may be asked to bear a portion of the expense

SUMMARY AND CONCLUSIONS

The summary—a brief abstract of the article—may appear at the beginning or at the close Not every article should be summarized Those of more than average length (more than 1,500 words), those which involve much description of detail and technic and those which aim at a complete survey of literature on the particular subject demand a summary A brief digest of a long article in the introductory paragraph often will stimulate someone to read the article who otherwise would not

The summary should recapitulate observations reported or repeat statements of fact The writer should not say simply that certain phases of a subject are discussed or that a certain type of case is reported Such a summary wastes space without giving additional information or emphasizing significant facts Manuscript editors usually will delete sentences offered as a summary which are without importance in emphasizing the material in the article itself

The conclusions—the deductions drawn from the cases presented, the experiments or other facts set forth—appear at the close Conclusions are of special value, particularly since they lead to wider abstracting Conclusions are "fat" for abstracters and for editors who are looking for "fillers" If an author is anxious to have his conclusions reproduced by other journals, he should rigidly condense them, yet make them clearly reflect his premises and deductions

Conclusions, which usually are more or less coordinate in structure and substance, frequently gain effectiveness by being numbered Items in a summary or in a combination of summary and conclusions, however, as a rule should not be numbered, for they are not coordinate In the following example the numbering is correct Had all the paragraphs been numbered consecutively, the effect would be illogical and misleading

> A series of 103 cases of various functional dermatoses and 7 cases of true eczema were studied
>
> Every patient was subjected to epidermal and dermal testing by means of patch tests and scratch tests performed with a standard set of 74 substances
>
> From the data obtained we believe that the following conclusions may be drawn
>
> 1 Epidermal hypersensitivity as manifested by a positive reaction to a patch test is present in patients with eczema-dermatitis venenata as an unchanging reaction to the causative substance
>
> 2 Epidermal hypersensitivity is rarely, if ever, present in patients with functional dermatoses
>
> 3 Dermal hypersensitivity as manifested by a positive reaction to a scratch test is noted occasionally in patients with eczema and the causative substance is frequently the cause of an accompanying hay fever or asthma

The value of the summary and the conclusions is appreciated less by the average writer than by the average reader The busy physician

The Complete Consideration of a Single Disease

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use quotations either to have an accurate typewritten copy made of all material which he may include at the time the book or periodical is consulted or, if this is not convenient, to have the passages chosen rechecked when the final copy of the manuscript is being made.

Laboratory reports made by other physicians, personal communications and other material which has not been published elsewhere may, and should, be edited in the same style as that used for the rest of the paper Such material usually is not written for publication and is not prepared as carefully as it would have been had the writer known it would appear in print under his name.

4

Construction of the Manuscript

Ideally, the framework of a paper should be outlined before writing is begun This framework may include headings for short imaginary chapters, each chapter covering a subdivision of the subject If the article is to be elaborate, each heading may be further subdivided This will avoid the repetition of facts or ideas—a common fault A suitable title, informative subheads a clear summary and cogent conclusions represent the framework of a well constructed paper

THE TITLE

The title is more important than the average medical writer realizes If an author wants his contribution to become a part of the literature on the subject, he must give it a name that will identify it, that is descriptive Thousands of papers lie buried in medical literature because their titles did not designate the subjects The title should be short, but inclusiveness should not be sacrificed for brevity Often a long title may seem necessary, although usually brevity and clearness may be gained by the use of a main title and a subtitle A title should consist of not more than 90 letters, counting spaces between words as letters

Hardly anyone remembers such unwieldy titles as "Brain Tumor of Psychomotor Area, Causing Jacksonian and Generalized Convulsions, Visual Hallucinations Somatic Operation, Recovery, Mental and Physical" With that title, why write a paper? Another unwieldy example "Erythromelalgia Report of a Case Presenting Peripheral Vasomotor Disturbances in the Hands and Feet for Twelve Years, Reaching a Climax in Eight Years, with Recovery Following Treatment by Adrenal Substance" These two examples are taken from published papers The following was the original title of a paper that was submitted to *The Journal* "To Obtain Graphs Showing the Rapidity and Degree of Decrease in Temperature in the Eye and Orbit Produced by the External Application of a Given Degree of Cold over a Given Area for a Given Time, and a Numerical Expression, at Least Approximate, of the Relation of These Variables to

Each Other" What could an indexer or cataloguer do with such a title? This title should be rewritten thus "Coefficient of Thermal Conductivity of Eye and Orbit Measured with Application of Cold"

Ambiguity. Misleading titles should be avoided "A New Chloroform Danger" was the caption of another manuscript In looking up references to the literature on the dangers of anesthesia a physician would have been attracted by the title, and after laboriously searching for the article he would have discovered that he had been misled The title became "Danger in Similarity of Ether and Chloroform Containers," which stated the subject of the communication First impressions are lasting, a catchy title catches readers The title ought to be carefully thought out and should give a clear indication of what is to come

The following titles, taken from papers published in medical periodicals are examples of the ambiguous types which cause distress to those responsible for indexing medical literature

Foci of Infections Above Collar Bone and Importance of Their Early Recognition	Idle Thoughts on Medical Education
Borderline Cases	Render unto Caesar
Ideas in Syphilology	Macedonian Call
Odd Experience of a Young Practitioner	School Follicles
The Emergency Abdomen	Curing from Yon to Hither
The Abused Cervix	Clinical Observations
	Suggestions
	Sepelire Malum Resuscitare Bonum
	Some Stomachs I Have Met

The Subtitle. If it is necessary to include much material in the title, it should be divided into a main title and a subtitle For example, the title "A Precise and Simple Method for Counting of Blood Cells and Bacteria Without a Special Chamber" became "Counting of Blood Cells and Bacteria," with the subtitle "A Precise and Simple Method Without a Special Chamber" "Disturbances of Conditioned Reflexes Observed in Study of Functional Changes in the Brain of the Dog After Removal of the Cerebral Blood Supply, in This Case by Ligation of the Arteries Supplying It" might be expressed as a main title, "Functional Changes in the Brain of the Dog After Reduction of Its Blood Supply," and a subtitle, "Disturbances of Conditioned Reflexes After Ligation of Arteries" Other examples are given on pages 34 and 35

ORIGINAL TITLES

THREE HUNDRED AND THIRTY LOW, CERVICAL CESAREAN SECTIONS (LAPAROTRACHELOTO-MIES) WITH TWO DEATHS

A CASE OF DERMATITIS GANGRENOSA INFANTUM

STUDY OF A CASE OF ACNITIS, WITH PAR-TICULAR REFERENCE TO THE BAC-TERIOLOGIC FINDINGS

FURTHER STUDIES IN ECZEMA AND DERMATITIS

SYNDROME OF AVELLIS, WITH A REPORT OF THREE CASES

BACTERIOLOGIC STUDIES IN ACUTE ENTERITIS IN INFANTS AND YOUNG CHILDREN, INCLUD-ING BACTERIOLOGIC METHODS, MORPHOL-OGY AND CULTURAL CHARACTERISTICS OF STREPTOCOCCUS MICRO-APOIKIA AND CLINICAL STUDIES ON FORTY-SIX PATIENTS WITH ACUTE ENTERITIS

THE STUDY OF BRONCHIAL ASTHMA AND ALLIED ALLERGIC DISORDERS UNDER CONTROLLED CONDITIONS OF ENVIRONMENT, TEMPERA-TURE AND HUMIDITY. A PRELIMINARY REPORT

IMPROVED TITLES

LOW, OR CERVICAL, CESAREAN SECTION (LAPAROTRACHELOTOMY)

THREE HUNDRED AND THIRTY OPERATIONS, WITH TWO DEATHS

DERMATITIS GANGRENOSA INFANTUM

REPORT OF A CASE

ACNITIS, WITH PARTICULAR REFERENCE TO THE BACTERIOLOGIC FINDINGS

REPORT OF A CASE

ECZEMA AND DERMATITIS

SYNDROME OF AVELLIS

REPORT OF THREE CASES

ACUTE ENTERITIS IN INFANTS AND IN YOUNG CHILDREN

BACTERIOLOGIC, MORPHOLOGIC AND CULTURAL STUDIES OF STREPTOCOCCUS MICRO-APOIKIA, CLINICAL STUDIES ON FORTY-SIX PATIENTS

BRONCHIAL ASTHMA AND ALLIED ALLERGIC DISORDERS

PRELIMINARY REPORT OF A STUDY UNDER CONTROLLED CONDITIONS OF ENVIRONMENT, TEMPERATURE AND HUMIDITY

THE AUTHOR'S NAME

Much unnecessary confusion arises in the indexing of medical literature because authors sign their names in different manners in different countries In France and in Germany many writers sign only their surnames, others use only initials for the first name Many authors in foreign publications sign the name at the close of the article

The Italians sometimes write the given name last The Spanish frequently follow the father's surname with the mother's maiden name, and it is difficult to tell which is the baptismal name and which the surname For example Dr Remigio Salazar should be indexed as R Salazar, under the S's, while Dr Alvárez Sierra is Dr Alvárez, and Sierra is to be disregarded Then, again, for personal reasons some Spanish writers prefer to be known by the mother's family name, so Dr Angel Pérez Martín is always called Dr Martín and Dr Gómez y Giocoechea, Dr Giocoechea Prof Santiago Ramón y Cajal signed himself Cajal, rather than Ramón References to the works of these men, however, should be indexed under the father's surname, the name being listed, for instance, as Pérez Martín, A

Chinese names usually are written with the surname first and the name which corresponds to the Christian name second, in two words with a hyphen between them for instance, Wu Lien-tech Some write their names with the surname last but still hyphenate the given name, as Lien-tech Wu Still others use only the initials, in which case the surname is always the last, as L T Wu When the second name is not hyphenated, it is difficult to know which is the surname and which the given name When there is only one word to the second name, the surname should always be written first, as Wu Hsien, when Wu is the family name In a few instances there are two syllables in the surname as well as in the given name, then the first two should be the surname, as Ou-Yang Yu shen

Obviously in consulting American and English literature, the Spanish speaking physician is at a loss and is likely to refer to Dr Oliver Wendell Holmes as Dr Wendell The American practice in recording literature, that of giving the last name first, followed by a comma and the given name, sometimes produces errors, thus,

Dr Ruth Tunnicliff is mentioned frequently in foreign indexes as Dr Tunnicliff Ruth, and Dr Marion Van Slyke sometimes is referred to as Dr Van S Marion A young author should decide early in his career the manner in which he wishes his name to appear and should not change thereafter Sir William Osler always signed his communications "W Osler" Obviously, if the name is a common one, such as Smith, Brown or Johnson, and only the first initial is signed by the author, identification for indexing purposes is not easy It is advisable for authors whose names are not widely known to sign the full name or, in any event, to adopt a consistent form and to follow it regularly

SUBHEADINGS

Subheadings enable the reader to find the points in which he is most interested Center heads break up pages of solid type, which repel the reader, and aid the author to present his subject logically and concisely It is to be regretted that center heads are not used more commonly in medical and other scientific journals The author is more competent than the copy editor to furnish subheadings To supply these may be additional work, but it is worth while, it makes the article more attractive and thus more likely to be read

If the author has prepared his article systematically, he will have collected his material according to various phases of the subject Thus, he may have an introduction, bibliographic references arranged chronologically or by classes, case reports, protocols of experiments, a summary and conclusions Obviously, these represent center headings under which may come still more detailed subheads

As the author plans his system of headings, he should bear in mind the fact that all material included under one heading should belong to it and that if the subject is changed another heading must be inserted

CODE FOR HEADINGS

As indication of the various sizes of type and possible headings and subheadings that may be used, the code used by the press of the American Medical Association is given on pages 38 and 39 The type for a heading is indicated by placing the appropriate number in a small ring

1	10 POINT OLD STYLE CAPS
2	10 POINT OLD STYLE SMALL CAPS
1 & 2	10 Point Old Style Caps and Small Caps
3	8 POINT OLD STYLE CAPS
4	8 POINT OLD STYLE SMALL CAPS
3 & 4	8 Point Old Style Caps and Small Caps
5	*8 Point Old Style Italic Caps and Lower Case*
5A	*8 POINT OLD STYLE ITALIC CAPS*
6	*10 Point Old Style Italic Caps and Lower Case*
7	*10 POINT OLD STYLE ITALIC CAPS*
8	**8 POINT BLACK LETTER CAPS, CENTER HEAD**
9	**8 Point Black Letter Caps and Lower Case Center Head**
10	**8 Point Black Letter Caps and Lower Case, Side Head**
10A	***8 POINT ITALIC BLACK LETTER CAPS CENTER HEAD***
10B	***8 Point Italic Black Letter Caps and Lower Case Center Head***
10C	***8 Point Italic Black Letter Caps and Lower Case, Side Head***
11	6 POINT OLD STYLE CAPS
12	6 POINT OLD STYLE SMALL CAPS
11 & 12	6 Point Old Style Caps and Small Caps
13	*6 Point Old Style Italic Caps and Lower Case*
14	*6 POINT OLD STYLE ITALIC CAPS*
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18	**5 POINT BLACK LETTER CAPS**
19	**5 Point Black Letter Caps and Lower Case**
20	6 POINT MODERN CAPS
20A	**6 POINT BLACK LETTER CAPS**
21	**6 Point Black Letter Caps and Lower Case**
22	6 POINT NO 16 CAPS
23	6 POINT NO 16 SMALL CAPS
22 & 23	6 Point No 16 Caps and Small Caps
24	*6 POINT NO 16 ITALIC CAPS*
25	*6 Point No 16 Italic Caps and Lower Case*
26	8 POINT NO 16 CAPS
27	8 POINT NO 16 SMALL CAPS
26 & 27.	8 Point No 16 Caps and Small Caps
28	*8 POINT NO 16 ITALIC CAPS*
29	*8 Point No 16 Italic Caps and Lower Case*

30. 10 POINT NO. 16 CAPS

31. 10 POINT NO. 16 SMALL CAPS

30 & 31. 10 Point No. 16 Caps and Small Caps

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33 *10 Point No. 16 Italic Caps and Lower Case*

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37A. 10 POINT REMINGTON TYPEWRITER CAPS

38. 12 Point Remington Caps and Lower Case

38A. 10 Point Remington Caps and Lower Case

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43 8 POINT METRO MEDIUM CAPS

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47 6 POINT LINING GOTHIC (SIZE 1) LIGHT FACE

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in front of the heading For a center head, the words are placed in the center of the line and the end of the head may be indicated by the sign ¶

NOTE If figures appear in a heading, no 17 should be employed instead of no 4 and no 11 instead of no 2

TYPE

Sizes of Type. In the publications of the American Medical Association Press 10 point type is used for most of the material in original articles Eight point type is used in such articles for case reports and protocols, for detailed descriptions of experiments and for descriptions of method and of apparatus (unless such a description constitutes the main part of an article) Eight point type is used as a rule for abstracts, society transactions, book reviews, quotations of more than three or four lines and other miscellaneous material Six point type is used for tables and for tabulations requiring several columns Footnotes and bibliographies are set in 8 point type except in *The Journal of the American Medical Association*, in which 6 point is used

Use of Italics Excessive use of italic type detracts from the simplicity of style desirable in scientific publications In the publications of the American Medical Association italics are used sparingly The use of italics for emphasis of words or phrases is permitted only when the effect can be secured in no other way

The following rules are observed

Italics are used by some presses

1 For foreign words and phrases, including names of diseases (other than Latin), which are preceded by the sign || in Webster's "New International Dictionary to indicate that they have not been anglicized, or which are not given in the leading medical dictionaries such as "Blakiston's New Gould Medical Dictionary or Dorland's "American Illustrated Medical Dictionary'

2 *Sparingly* for emphasis

3 For the names of periodicals in text matter or in references in parentheses in society transactions, discussions and legends for illustrations

4 For principal side headings, and sometimes for brief summaries at the beginning of case reports or protocols

5 For headings of tables

6 For letters and numbers, in the text or in legends, which designate parts of illustrations

7 For letters designating parts of footnotes, except when they are used with superior figures

8 For lower case letters used in enumeration

9 For scientific names of organisms

10 For names of foreign societies

11 For letters designating unknown quantities, for lines, areas, volumes, etc , in mathematical expressions

12 For names of ships

Italics are not used by some presses

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Greek Letters and Symbols When Greek letters are used, it is desirable to identify them for the typesetter, either by writing the name of each letter in full in the margin or by using the appropriate number from the code given here

97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
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Mathematical and other symbols likewise should be identified in the margin It is especially important to mark minus signs, which may be confused with hyphens

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Mathematical and other symbols likewise [illegible] in the margin It is especially important to mark [illegible] be confused with hyphens

Words and [illegible]

Attention is called to the [illegible] regarding [illegible] Horton [illegible] quoted from an editorial [illegible]

Due to. This [illegible] used by the [illegible] as though [illegible] prepositions and adverbs [illegible] pound preposition [illegible] must be attached to a noun [illegible] Webster's "New International D[illegible]" [illegible] (to something) [illegible] as, [illegible] used in the phrase due to [illegible] of a compound preposition as, [illegible] lack of [illegible]

Hypothecate. This does not mean [illegible] depos[illegible]

Data. The word "data" is a plural [illegible]

Ramogense. [illegible] it should not be a [illegible] Webster's [illegible]

Breve Yellow. This [illegible]

Pneumonogen. The [illegible]

Medical Jargon. [illegible]

scientists, particularly to those of foreign countries since they are not translatable They are the mark of the careless and uncultured person

A number of these terms are given here, with the correct words following

Jargon	*Correct Term*
acute abdomen	acute condition within the abdomen
alcoholic (as noun)	alcoholic addict, person with alcoholism
Ammon s horn	cornu ammonis
cardiac cardiac patient	patient with cardiac disease
cardiac diet	diet for patients with cardiac disease
chronic appendix	chronic appendicitis
chronic ear	chronic otitis
diabetic (as noun)	person with diabetes
epileptic (as noun)	person with epilepsy
flu	influenza
jugular ligation	ligation of the jugular vein
lues, luetic	syphilis syphilitic
milligrams per cent	milligrams per hundred grams [or] other unit
multip	multipara
neisserian disease	gonorrhea
organ or structure is negative	organ or structure is normal
oviducts	fallopian tubes
pathology (in concrete sense)	pathologic change disease
postmortem (as noun)	autopsy, necropsy
primip	primipara
prostatic	patient with hypertrophy, inflammation or some other disturbance of the prostate gland
right heart	specify right auricle or right ventricle
right upper lobe	upper lobe of the right lung
serology	changes in the blood or serologic reactions of the blood or the spinal fluid
specific	syphilitic when that is meant
specific stomach	syphilis of the stomach
spinal fluid dynamics	dynamic pressure of spinal fluid
surgical (or operative) interference	surgical (or operative) intervention
subtotal gastrectomy	partial gastrectomy
suspicious of	suggestive of
syphilitic (as noun)	person with syphilis
taboparesis	the tabetic form of dementia paralytica
upper abdomen	upper part of the abdomen
upper respiratory infection	infection of the respiratory tract
urine contained 4 plus albumin	urine gave a 4 plus reaction for albumin [or] urine contained albumin (4 plus)

Certain forms of phraseology become established in medical discussions so that they are easily recognized by the physician, but are ludicrous when written Physicians frequently say that a patient was placed "on cannabis," "on hydrotherapy" or "on a diet" Probably most grammarians would sanction the last of these three phrases but would hesitate to approve the statement that the patient was "placed on cannabis" In such instances it is better for the writer to state that cannabis was prescribed in a certain dose, to be administered at certain periods in a certain manner A physician may say, "I have had no experience with starvation in epilepsy" Obviously, he means that he has not tried the treatment of epilepsy by starvation of the patient He will say, "I have had little experience with pneumothorax in tuberculosis,' meaning that he has not attempted the use of this method in any case of tuberculosis which has come to his attention

Trite Usage. Many a competent journalist has urged reporters to use words that say exactly what is meant and to avoid the diction that has become trite by overusage A good reporter never says "Smith sustained an injury", he says "Smith was injured" He never writes that people were "joined in the holy bonds of matrimony", he says "they were married' It is unnecessary to say of a well known man that he is "well known" and, in any event, "widely known" is better than "well known" A dog is just a dog and not a "canine," exactly as a cow is a cow and not a "bovine' People begin various processes, they seldom "inaugurate" or "initiate" these affairs A patient lives in Portland, he is not "located" in Portland The body of a dead man is his "body" and not his "remains" Far too many sentences begin with the words "It is" and "There is"

Case A case is an instance of disease, the totality of the symptoms and of the pathologic and other conditions, a patient is the human being afflicted One continually finds in medical manuscripts such sentences as "The case had a fever," "Thirty cases were admitted to the hospital" and "The case was operated on" In the publications of the American Medical Association such usages are banned

A less obvious confusion exists in the employment of "case" to designate the condition While from the definitions of the word given in dictionaries it might be used in the narrow sense of an attack of a

disease, in which event it might be considered as the condition itself, such usage is likely to lead to constant shifting of the point of view, even within sentences or paragraphs One might write, for instance "In the acute case the patient was admitted to the hospital" Obviously, a case which is acute includes only the actual disease and its symptoms, while a case in which admission to the hospital is made and records are kept must include far more—all the attendant circumstances Thus the word would be used in two senses in the same sentence To avoid such inconsistency, proper medical writing restricts the use of "case" to its broader meaning, as indicated in the preceding paragraph—an instance of disease, the totality of what is known about the patient, his condition and all the circumstances Moreover, the concrete subjects with which one is dealing are the patient and his condition, and writing will be simplified and vivified if one refers to them specifically rather than to the abstract "case"

Use of Abstract Words in a Concrete Sense "A malignancy was removed," "The cytology was normal" and similar statements are found frequently in manuscripts For many years it has been a policy of the American Medical Association Press to avoid the use of abstract words in a concrete sense The suffix "ology," for instance, according to Webster means "a science or branch of knowledge", and to use a word with that ending to describe a tumor or a specific change in the tissue is illogical and inconsistent with the principles of good choice of words "There was no pathology" is an outrageous sentence One would not dream of saying "There was no ophthalmology," for instance Another expression to be eradicated is "biopsy showed" or "revealed" It is of course the histopathologic examination and not the operation of performing a biopsy which showed what was present

The following incorrect and correct sentences illustrate the principles that should be followed in the preparation and in the editing of manuscripts

Incorrect	*Correct*
The growth proved not to be a malignancy	The tumor was not malignant The malignancy of the growth was not considered

Incorrect	*Correct*
There was no pathology	A pathologic condition was not found
	The pathology[1] of syphilis is worthy of much study
The morphology of the tissue was that of sarcoma	The structure of the growth showed it to be a sarcoma
The histology of the lesion was studied	The lesion was examined histologically (or microscopically)
The cytology was normal	The cells (or cell count or whatever specific features were noted) were normal
The patient presented a severe symptomatology	The patient had severe symptoms
	A knowledge of symptomatology aids the physician in diagnosis
	The symptomatology of tuberculosis is varied[2]
The etiology of the anemia shown by this patient was not known	In this case the cause of the lesions was not determined
	The etiology[3] of some diseases is still vague
Microscopy showed the changes to be well advanced	Microscopic examination revealed the nature of the tumor
Bronchoscopy was performed immediately	A bronchoscopic examination was made each week
	Treatment with the bronchoscope relieved the patient
	The development of bronchoscopy has aided the physician greatly
Ventriculography showed normal filling	A ventriculogram was made on several occasions
	Encephalography should be understood by every neurologist
Surgery seemed the only possible treatment for that patient	Surgical intervention was considered but was postponed
	(Title) Surgery of the Gallbladder[4]

Dosage and Dose "Dosage" means the administration of medicine in regular doses or the determination and regulation of the proper

[1] "Pathology" here means the part of the science of pathology that deals with syphilis

[2] "Symptomatology" here refers to the entire complex of symptoms known to be associated with tuberculosis

[3] "Etiology" here means the theories of the causation of the disease "Causation," however, would be better

[4] "Surgery" may be used in an instance such as this if the author wants to emphasize that he is dealing with the part of the entire field of surgery that concerns the gallbladder Usually, however, "Surgical Intervention on the Gallbladder" is adequate

doses The amount of a medicament to be administered at one time is correctly termed the "dose" Such expressions as "administered in small dosage" or "dosage of 3 drops" are redundant and should be avoided, and the shorter and more concrete word "dose" should be employed

Inject The transitive verb "inject" means (1) to introduce a substance into or (2) to distend or fill with fluid by injection It is therefore incorrect to speak of "injecting a patient with arsphenamine" or of "injecting a rabbit with virus" One "gives the patient an injection" and "injects the virus into the rabbit" or "inoculates the rabbit with the virus" It is permissible, however, to say that one "injects the bronchi" or "injects the blood vessels of a cadaver" when one actually fills the structures with a contrast medium

Temperature and Fever, and Analogous Expressions To say that a patient had "no temperature" is incorrect "No fever" or "no elevation of temperature" may be used, although it is perhaps better to say that the temperature is "normal" or "higher than normal" or "subnormal" Better still, if the temperature is abnormal, it should be given in terms of the Fahrenheit or centigrade scale It is, moreover incorrect to say that a patient had a "fever of 102° F", "temperature" rather than "fever" should be used

An analogous faulty usage occurs frequently with other words "Leukocytosis," for instance, means the *presence* of an abnormally large number of white cells in the blood It is undesirable, therefore to speak of "leukocytosis of 15,000" instead of "a leukocyte count of 15 000" If an author wishes to emphasize the abnormal condition by the use of the word "leukocytosis," he may say that "leukocytosis was present (15,000 cells)" or that "there was leukocytosis the white cell count being 15 000"

Similarly, manuscripts frequently contain such expressions as "The glycemia increased from 90 to 125 mg per hundred cubic centimeters" and "There was hyperglycemia of 150 mg" These ideas would be expressed better as "The sugar content of the blood increased from 90 to 125 mg," "The sugar content was high, 150 mg per hundred cubic centimeters" or "There was hyperglycemia, the sugar content being 150 mg"

Cystoscope, Obstetricate, Explore, Refract. The following sentence appeared in a manuscript submitted for publication

> *It was decided that the patient should be explored with the expectation of finding an acute appendix*

Such a decision once made, the surgeon did not hesitate, he explored his patient Another surgeon was not so courageous

> We have contemplated having some of our inoperable cases collapsed by thoracoplasty but have delayed

And another physician, finding the English language rather inadequate for his purpose, perpetrated this monstrosity

> In a case in which I obstetricated at birth

Such use of transitive verbs with illogical objects has no justification in the laws of grammar or in the usage of persons of even ordinary education Even less justification exists for using ordinary common nouns as verbs which do not exist Astronomers never telescope the sky, bacteriologists never microscope their slides, but urologists do not hesitate to cystoscope their patients Far worse, however, is the ... of proper names of scientists into verbs describing procedures that they have evolved or discovered The bacteriologist who would not microscope his slides will "Schick" one patient and "Wassermann" another

Use of Adjectives as Nouns. Some words, such as "juveniles," "adolescents," "adults" and "convalescents" which originally were pure adjectives and are still adjectival in form, have come to be accepted as nouns In most instances, however, it is well to avoid the use of an adjective as a substantive, from the standpoint both of linguistic purity and of accuracy in medical terminology "Sphenoid" and "ethmoid" are now listed in medical dictionaries as nouns designating the respective bones; their use in a similar way to indicate the sinuses, however, is not sanctioned and is misleading to the reader, who frequently is unable to determine which structure is meant Neurologists frequently speak of "the sympathetic" or "the sympathetics" How much more informative it would be if in each instance some specific phrase, such as "the sympathetic nervous system," "the sympathetic

nerve supply of the area," "sympathetic nerve fibers" or "the cervical portion of the sympathetic trunk," were supplied! Use of the adjectives designating arteries, veins, nerves and muscles as substantives may cause a reader to puzzle, for instance, over whether an artery, a vein or a nerve is meant when an author speaks of "the iliac" or "the peroneal"

"The former" or "the latter" refers to one of two specific things just mentioned and therefore may be considered as having a specific "antecedent," making insertion of a noun in each instance unnecessary In the case of "the foregoing" and "the following," however, the exact thing referred to may not be as clear as it should be in scientific writing, so usually it is better to supply the noun which the author has in mind, as "the foregoing list" or "the following formula"

Some terms are so frequently used in various phases of medical practice that they become recognized as in good usage For instance, the industrial physician has employed the following terms so frequently that their use is permissible

accident proneness
case finding
employee morale
employee union
health audit
health examination
labor union
occupational hazard examination
plant supervision
union grievance
work stoppage

In other phases of medical practice, other combinations have also been so frequently used as to be recognized as good form Here are some examples

blood cultures
blood plasma
brain damage
brain injury
cataract extraction
lid margin
lower back pain
skin flap
skin reaction
skull fracture
urinary tract infection

Adjectives Modifying a Word Other Than the One Qualified
Such expressions as "the right chest" and "the upper abdomen" are commonly used Since there is only one of each of these structures and the adjective really modifies an understood "side" or "part," the

phrases should be expanded to "right side of the chest" or "upper portion of the abdomen" or some equally accurate designation

A similar misuse of adjectives occurs in such phrases as "upper respiratory infection," which means and should be expressed as "infection of the upper part of the respiratory tract" Other undesirable phrases of this type are

right heart	for	right side of the heart (specify right ventricle or right auricle)
cardiac diet	for	diet for patients with cardiac disease
jugular ligation	for	ligation of the jugular vein
facial paralysis	for	paralysis of the facial nerve, when that is meant
left lower lobe	for	lower lobe of the left lung

Further illustrations are included in the list of examples of medical jargon on page 43

Group and Type A favorite of many physicians is the word "group" An author may divide his patients into "groups" on the basis of age, again on the basis of the type of disease presented and finally on the basis of the results obtained In many instances confusion may be avoided by using other terms, such as "series" and "subgroup," to distinguish the divisions concerned

The use of "group" in the sense of "type," however, as in the phrase "this group of sarcoma," should be avoided not only because of vagueness but also because of inaccuracy Funk and Wagnalls' "New College Standard Dictionary" gives 8 definitions of "group" and Webster gives 12, but none of them justifies this use of the word Frequently an author says after a sentence has been questioned that he means a group of cases of a particular type of tumor, but he did not bring this out in the manuscript The following examples of correct usage should be considered carefully

> In the first group of cases sarcoma of the spindle cell type occurred
>
> This type of growth belongs to the lymphoblastoma group (that is, a group of several related structures all of which are lymphoblastomas)
>
> The type of lymphoblastoma under consideration is interesting

Carelessness in writing and in organization of material is evident when, for instance an author defines three groups of *cases*, numbered

1, 2 and 3, and then proceeds to speak of "the *patients* of group 1" or "the *tumors* of group 3"

Indefinite Article Before the Name of a Condition Idiom requires that one say "The boy had an eruption" 'The patient had anemia," however, is preferable to "The patient had an anemia," for both clarity and brevity With the names of most conditions which are definite entities, "a" or "an" may be omitted to advantage

The plural forms of names of conditions, such as "anemias" and "toxemias," *usually should not be employed in the sense of instances* of the condition but should be reserved to designate types of the condition "The anemias that I have observed" might mean either "the forms of anemia that I have observed" or "the cases of anemia that I have observed" If the latter is meant, the fact is brought out by insertion of "cases of" or "instances of"

Operate A flagrant disregard of the rules of grammar is found in the deplorable misuse of the verb "operate" "Operate" is both a transitive and an intransitive verb, and its usage in the two forms is clearly defined in even the most elementary grammar 'Operate" means, and is synonymous with, "work" The terms nearly always may be used interchangeably The surgeon who would hesitate to say "I worked this patient" says unblushingly "I operated this patient' This solecism is limited to the medical profession It is also limited to this country American surgeons who justify themselves by saying that general usage makes correct usage should realize that "operate" is a word in general use wherever the English language is spoken, and that members of other professions and trades use it correctly Even if this misuse of the verb "operate" were not limited to medicine, good usage is the usage not of the careless minority but of the educated majority The pity of it is that some teachers in medical schools—professors of surgery—instead of setting an example to their students in the proper use of this verb, are responsible for the spread of its improper use

Milligrams Per Cent *Results of chemical determinations fre*quently are expressed as "milligrams per cent" or "grams per cent" This means literally "milligrams (or grams) per hundred milligrams (or grams)," which in most instances is not the information that the author wishes to convey To insure accuracy a writer should specify

the unit used, such as "milligrams per hundred cubic centimeters" or "milligrams per hundred grams" If a number of values are given close together in a section or in a short paper, it usually is sufficient to supply "per hundred cubic centimeters" the first time the phrase appears and to use merely "milligrams" (not "milligrams per cent") thereafter

Findings and Found An autopsy or a histologic examination of tissue is in most instances a systematic study of organs and tissues for the purpose of learning what changes, if any, have taken place It is preferable, therefore, to speak of the conditions "observed," "seen" or "noted" rather than of those "found," and to refer to "observations" rather than to "findings In the publications of the American Medical Association Press this distinction is observed, except perhaps in instances in which a search for a specific element is being made and the element is therefore actually found as is frequently true in microscopic studies of blood and of cultures

The word "findings" is in general overworked If an author will look over a paper to see how often he has mentioned "findings" and in how many instances something more specific could have been substituted, he frequently will be surprised and will be able to make his report more informative

Histologic and Histopathologic Some writers have acquired a habit of using histopathologic' to the exclusion of the briefer word "histologic ' There may be instances in which the idea of disease or of a relation to the science of pathology that is expressed by "-patho-" gives additional information If it is known, however, that the tissues examined are from a tumor or are part of a body under the influence of a general disease, ' histologic examination" or "the changes observed histologically" is adequate

Developed According to the "Pocket Oxford Dictionary," the verb "develop" means "bring or come from a latent or rudimentary or immature state to visibility or activity or greater elaboration or size or completeness" Other dictionaries agree It is obviously incorrect, therefore, to say that a patient "developed a tumor," for he did not bring it into being When "develop" is used with reference to the origin of disease, it must be employed in its intransitive sense, as in the

sentence "The disease developed in this patient when he was 6 years old"

Biopsy Biopsy is an examination of tissue, it therefore is not correct to speak of "taking a biopsy" One "takes a specimen for biopsy" or, less formally, "takes a biopsy specimen" Likewise, one does not "remove tissue at biopsy," nor does one "inflict a wound at biopsy", the injury occurs during "removal of tissue for biopsy" It is redundant to speak of "biopsy examination"

VAGUE AND INACCURATE TERMS

Ambiguous Pronouns Confusion is caused by careless use of pronouns It often is impossible to tell when an author is referring to himself and when to some other person or persons He may refer to himself in one place as "the writer," in another as "I" and in still another as "we" He may then use the pronoun "we" with reference to the medical profession or to people in general The use of the first person singular ("I" or "me"), which has been adopted by this press, is the clearest and most satisfactory usage

In a supplement to the *Lancet*[5] it was stated

> The first person singular—the naked *I*—is no longer thought immodest Elaborate garments such as *we* and *the author* do not disguise a writer s identity unless they also disguise his meaning and medicine has no need of such aids to ambiguity

When an author is reporting work done in conjunction with others, it is proper for him to use the pronoun "we," provided he states who are represented by the "we, ' so that the reader will not be confused When reference is made to one of two or three joint authors, the correct form is "one of us," with either the initials or the name in parentheses if the authors wish it

The use of "the writer" or "the author" when the author of the paper means himself often makes it difficult to tell whether the author of the paper or another author just referred to is meant, and such usage is not permitted in the periodicals published by the American Medical Association In impartial reviews of the literature, in which

[5] On writing for the Lancet Lancet Jan 2 1937 supp p i

the author is abstracting earlier papers by himself, alone or in collaboration with others as impersonally as reports by other physicians, it is permissible for him to say "Jones and Brown reported " instead of "Brown and I reported " if awkwardness is avoided by use of this form

As an example of the difficulty occasioned by improper use of the word "we," the following incident is cited

An author used the plural pronoun all through his paper One sentence originally read

> Feeling as we do we have ceased to employ it unless for some exceptional reason

This was changed to

> The hospital staff has ceased to use radium unless for some exceptional reason

The author in going over his proof made the sentence read

> Personally we have ceased to use radium unless for some exceptional reason

The manuscript editor, anticipating trouble, spoke about this when the proof was returned and suggested that the statement might read

> Radium is no longer used in the clinics at the New York Post Graduate Medical School and Hospital

This suggestion was not put into type but was submitted to the author for his approval with a letter relative to the use of the plural pronoun saying

> As you will notice we have made a *suggestion* on the last galley to obviate the use of the plural pronoun

He apparently took offense at this suggestion for modifying the sentence, for in his letter returning the proof he said

> *I refer particularly to the end of the article where you have made a* decided change in the wording You have also caused me to state what is not correct (the fourth paragraph from the end) when you substitute is no longer used in the clinics at the Post Graduate Hospital

The author finally changed the sentence to read

> Personally I have ceased to use radium

The use of the pronoun "you" when physicians in general or people in general are meant is also confusing

In reports of meetings of societies "we" and "you" may be used to refer to the members

Overworked Phrases. Certain locutions are likely to become established as a part of the vocabulary of the physician Such phrases as 'the examination revealed," "the microscope showed," "significant observation," "points out," "unexplored fields," "throws light," "symptom complex," "so-called," "suffered from the disease" (meaning "had"), "complains of the disease" and "interesting and instructive" are so frequently used by authors that they are likely to pass over them even after five or six readings of their manuscripts A special revision should be planned to eliminate overworked phrases

Superlatives—Very, Quite, Marked, Great Physicians and scientists frequently seem to find difficulty in expressing comparative size or comparative degrees of severity of illness, hence such words as "very," "quite," "marked" and "great" are used to excess

The use of "very" was discussed by Franklin P Adams in the New York *Tribune* He said

> Years ago this Pisa of Puristics, buttressed by Mr Gelett Burgess, offered a prize for an instance of the adverbial use of 'very' that made the qualified word stronger As we recall it, "Very Good, Eddie" and 'the Very Reverend Somebody" were the only offerings The use of 'very in speaking or writing is a confession of verbal poverty and mental indolence

The true meaning of "quite" is "completely " The use of the word in the sense of "considerably" is designated as colloquial (United States) in the "Pocket Oxford Dictionary' and in the "Standard Dictionary" and as loose or erroneous by Webster Moreover, "The skin was quite red" tells the reader no more than does "The skin was red "

When "quite" (except in its strictly correct sense) or "very" appears in an article accepted for publication in one of the periodicals of the American Medical Association, the word usually is deleted by the manuscript editors

In an editorial in the *Archives of Dermatology and Syphilology*,[6]

[6] The careless writing of medical authors editorial, Arch Dermat & Syph 3 421 (April) 1921

Dr William Allen Pusey, then and for many years its editor, presented the following discussion of the use of the word "marked"

The too frequent use of the participial adjectives marked or pronounced when the writer means great large distinct appreciable moderate considerable extreme intense or some other quality that he could easily with a little thought express accurately by means of a descriptive word, is perhaps the most frequent fault Marked used in this indefinite sense was found four times in two short consecutive paragraphs in a manuscript written by an academic graduate of one of our famous colleges The adverb quite is used in the same way sometimes it is used as a diminutive adverb as quite frequently for occasionally or to express all degrees of qualification from slightly to completely His mentality was quite low for His mentality was extremely low ' The great objection to the loose use of such words as marked and quite is that the words when so used do not indicate accurately what qualifications the writer means

On this subject Charles A Mercier[7] wrote

It is to be regretted that we have never adopted the admirable proposal of Dean Swift to keep all adjectives under lock and key and issue them to writers only on payment of a heavy fee Certain words are so shockingly overworked by medical writers as to call loudly for a Society for the Prevention of Cruelty to Adjectives It would be invidious to quote from any individual writer to illustrate a vice so generally prevalent and therefore I will disguise the reference by altering the disease but mutatis mutandis I recently read in your columns an account that ran much as follows A marked erythema was followed by a marked ulceration with a markedly sinuous edge which spread with marked rapidity and developed a marked discharge having a markedly purulent character increased to a markedly large size and was accompanied by a marked enlargement of the lymphatic glands Treatment brought about a marked improvement with marked rapidity and the ulcer healed leaving a markedly thickened scar which became the seat of marked keloid

Above and Below In preparing copy for publication it is well to avoid the use of the words above' and 'below,' for one cannot know just where a passage will come on the printed page The paragraph referred to as "above' may fall at the bottom of one page, and the one in which it is mentioned, at the top of another The difficulty may be avoided by use of such a term as "mentioned,' "previously mentioned' or "aforementioned,' or by referring to the heading or subheading of the section in which the statement cited appears

[7] Mercier Charles A How medical writings may be given a marked development Brit M J 1 768 (May 20) 1916

Et Cetera. "Et cetera" or "etc " should not be used in scientific articles, since the term conveys little if any idea of what was in the mind of the person who used it, and the manuscript editor usually is not able to substitute anything more specific When "etc " follows "such as" or "for instance," it is superfluous

Bilious. There was a time when anyone who was a little peaked and whose gastrointestinal tract was somewhat upset was characterized as "bilious " The term is a complete misnomer, since it does not refer to any actual disease Scientific physicians have discarded it entirely

Eczema. To the average layman, any disease of the skin is "eczema " Unfortunately, dermatologists themselves have fought over the term for many years The word "eczema" refers to a certain type of reaction in the skin, as do the terms "urticaria," "erythema multiforme" and ' erythema nodosum " The latter are definite types of reaction, due to numerous causes or often to unknown causes A profuse number of dermatologic papers are concerned with the nature of eczema or eczematous types of eruption

Neurasthenia, Psychasthenia and Hysteria. These terms are commonly used by the layman, together with "nervous breakdown," to describe any temperamental or mental disturbance To the physician, they should indicate definite conditions

Strain and Sprain Some physicians refer to any disturbance in a muscle or a ligament as a strain, when in reality it is sometimes a sprain These terms are ambiguous, since the exact condition constitutes a rupture of the tissues or perhaps a dislocation The terms "strain" and "sprain" seem to be without exact significance

Infection vs. Inflammation. When the body is invaded by bacteria, it is infected When any portion of the body suffers irritation from any cause, bacterial or otherwise, it responds by becoming red, swollen and hot, this reaction is inflammation The two terms are commonly used interchangeably without any conception as to their actual meaning

Rheumatism. The use of this word as a designation for any pain is not justified It is misused particularly with reference to the disease known as arthritis which is inflammation of a joint

Asthma. The term "asthma" commonly is used to designate any disease in which there is shortness of breath. Actually, shortness of breath may result from one of many causes, including a disease known as bronchial asthma. The correct term for shortness of breath is "dyspnea."

PREFERRED USAGES

Among other usages which frequently appear in medical writings and which, while not incorrect, in some instances are susceptible of improvement are:

Word or Phrase	*Preferred Usage*
adrenalin	epinephrine
affection (except in the special neurologic sense)	disease
agranulocytosis	granulocytopenia
all of	all
cane sugar	sucrose
carbon dioxide snow	solid carbon dioxide
casualty	wounded person
colored	Negro
cure (meaning treatment)	treatment (these words are not interchangeable)
deep roentgen therapy	high voltage roentgen therapy
doctor	physician
enteric fever	typhoid
functionating	functioning
general paresis, general paralysis, paretic dementia	dementia paralytica
Graves's disease, Basedow's disease	exophthalmic goiter
gut, guts*	intestine, intestines
Hebrew, Israelite	Jew, Jewish
hemeralopia	day blindness
humans	human beings, man
hypertension, essential	hypertensive vascular disease
hyphema	hyphemia (indicating hemorrhage of the eye)
hypodermatic	hypodermic
in extremis	moribund, dying
individual	person
insanity	mental disease
leukocytic count	leukocyte count

* "Gut" is used in embryology

Word or Phrase	*Preferred Usage*
lymph gland	lymph node
male, female	boy or man, girl or woman
medical men, men	physicians (or dermatologists, neurologists or some other specialists)
microphotograph	photomicrograph
milk sugar	lactose
mongolian, mongoloid (as noun)	person with mongolism
nyctalopia	night blindness
pediatrist	pediatrician
physiotherapist	physical therapist or physiatrist
physiotherapy	physical therapy
polynuclear (when referring to leukocytes)	polymorphonuclear
proven (archaic)	proved
remarks (in heading)	comment, observations
round celled tumor	round cell tumor
sacrificed	killed
Scharlach R	scarlet red
skiagram	roentgenogram
spotted fever	specific disease meant, such as typhus or cerebrospinal meningitis
suprarenal	adrenal
therapist	therapeutist
treponeme	spirochete
tumor mass	tumor
ultraviolet light	ultraviolet rays
x ray picture	roentgenogram
x rays (except when the apparatus is meant)	roentgen rays

Foreign Phrases From the time when the mark of the physician was his ability to discourse fluently in Latin, certain Latin phrases have filtered into medical discussions with a frequency that resembles the manner in which *Bacillus subtilis* may contaminate pure cultures of virulent germs Terms frequently abused are *pari passu*, *a priori*, *per se*, *in extenso*, *per os*, *in extremis* and *exitus lethalis* How much better to say simply, "The patient died" than to indicate his passing to immortality by a Latin route

Other foreign terms frequently used are *per contra*, *ad lib* and *sub judice* Such terms may be used but should be avoided when possible

In the publications of the American Medical Association Press a translation of foreign quotations usually is included When an author

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gut guts*	intestine, intestines
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hypertension, essential	hypertensive vascular disease
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Marie-Foix and Klippel-Weil While it is historically interesting to have a sign, test, reaction or disease known by the name of its discoverer, it is in the interest of scientific medicine to use a descriptive term Certainly "reflex rigidity of the pupil" is better than "the Argyll Robertson pupil", "great toe reflex" is preferable to "the Babinski sign", "exophthalmic goiter" is more descriptive than "Basedow's disease" When a discovery is credited to several writers, the matter becomes complicated by the fact that national pride may assign a different name to the disease in several different countries What is known in England as "Graves's disease" is called "Basedow's disease" on the Continent except in Italy, where it is known as "Flajani's disease"

In some instances, nevertheless, a condition of disease may be recognized as an entity before its nature is sufficiently well defined to permit choice of an accurately descriptive name "Hodgkin's disease," for instance, is at present preferable to "lymphogranuloma," "lymphogranulomatosis," "infectious granuloma" and other synonyms that have been proposed

The following table of eponymic diseases is quoted from the "Standard Nomenclature of Disease and Operations *

Abrami s disease *See* Hemolytic icterus acquired 252 (9)
Acosta s disease *See* Hypobaropathy 113 (4)
Adams Stokes syndrome *manifestation* 246 *Diagnose disease* e g Arteriosclerotic heart disease, 228 (5 0)
Addison s anemia *See* Anemia pernicious 249 (7)
Addison s disease *See* Tuberculosis of adrenal gland with cortical hypofunction 454 (1) Adrenal cortical hypofunction, adrenal disease undetermined, 455 (7)
Adie syndrome *See* Encephalomyelopathy of unknown origin, 464 (y) *manifestation* 521
Albers Schonberg disease *See* Osteopetrosis (marble bones) 144 (0)
Albright s disease *See* Osteitis fibrosa cystica 150 (7)
Alzheimer s disease *See* Presenile sclerosis 101 (7) 480 (7)
Aran Duchenne muscular atrophy *See* Duchenne Aran muscular atrophy
Argyll Robertson pupil *See* Paralysis of intrinsic muscles of eye 517 *and* Reflex rigidity of pupil 519
Arnold Chiari syndrome *See* Caudal displacement of brain stem, cerebellum and spinal cord 461 (0)

* The Standard Nomenclature of Disease and Operations is now published by The Blakiston Company for the American Medical Association The next revision of the Nomenclature will be ready for distribution about 1950

Arthus' phenomenon *See* Anaphylactic reaction, generalized, 110 (3), *and* Anaphylactic reaction, local, 118 (3)
Avellis paralysis *See* Paralysis, ambiguospinothalamic, 518, 521
Ayerza's syndrome *See* Syphilis of pulmonary artery, 237 (1), Dilatation of pulmonary artery due to mitral stenosis, 238 (6), Hypertension of lesser circulation due to disease of lungs, 237 (4), Arteriosclerosis of lesser circulation, 238 (9)

Babinski-Nageotte syndrome, 522
Baker's cyst *Diagnose* Popliteal bursitis *under* Bursitis due to unknown cause, 165 (9)
Bamberger-Marie disease *See* Marie-Bamberger disease
Banti's disease *See* Splenomegaly of undetermined origin, 256 (y)
Barcoo disease See Veldt sore, 136 (9)
Barlow's disease *See* Scurvy, 115 (7)
Barré-Guillain syndrome *See* Guillain-Barré syndrome, 522
Basedow's disease *See* Toxic diffuse goiter, 445 (9)
Baumgarten-Cruveilhier cirrhosis *See* Cruveilhier-Baumgarten cirrhosis
Bazin's disease *See* Tuberculosis indurativa (erythema induratum), 127 (1)
Bechterew's disease *See* Arthritis, rheumatoid, of spine, 155 (1)
Bell's palsy *See* Neuropathy of facial nerve due to pressure, 504 (4), *or* Neuropathy due to undetermined cause, 506 (y)
Benedikt syndrome *See* Paralysis, mesencephalic, tegmental, 518, 521
von Bergmann's hypopituitarism *See* Juvenile hypopituitarism, 451 (7)
Bernard-Horner syndrome *See* Horner syndrome
Bernhardt's disease *See* Meralgia paresthetica, 504 (4)
Besnier-Boeck disease *See* Sarcoidosis, generalized, 109 (1)
Best's disease *See* Degeneration, macular, congenital, 550 (0)
von Bezold's abscess *See* Subperiosteal abscess of temporal bone, 601
Bielschowsky-Jansky disease *See* Amaurotic familial idiocy, late infantile, 463 (7)
Biermer's disease *See* Anemia, pernicious, 249 (7)
Boeck's sarcoid *See* Sarcoidosis, generalized, 109 (1), Sarcoidosis of region, 117 (1), Sarcoidosis cutis, 127 (1)
Bornholm disease *See* Pleurodynia, epidemic, 205 (1)
Bouillaud's syndrome *See* Rheumatic fever, 109 (1)
Bouveret's syndrome *See* Auricular paroxysmal tachycardia due to unknown cause, 224 (x)
Bowen's disease, 134 (8)
  of lymph node, secondary, 260 (8)
  of mouth, 264 (8)
  of nasal mucosa, 178 (8)
Breda's disease *See* Yaws, 110 (1), 126 (1)
Bright's disease *See under* Nephritis
Brill's disease *See* Typhus, 110 (1)
Brown-Séquard syndrome, 521
Buerger's disease *See* Thromboangiitis obliterans, 233 (9)
Buschke's scleredema *See* Scleredema adultorum, 136 (9)

Calvé Perthes disease. *See* Legg Calvé Perthes disease
Carrion's disease *See* Oroya fever, 109 (1) or Verruga peruana, 127 (1)
Cestan syndrome, 522
Cestan Chenais paralysis *See* Paralysis, medullary, tegmental, 518
Chagas' disease *See* Trypanosomiasis, American, 110 (1)
Charcot joint *See* Neurogenic arthropathy, 161 (5 5)
Charcot's syndrome *Diagnose* Angiospasm of arteries of leg and foot, 232 (5 0)
Charcot Marie-Tooth disease *See* Progressive neuropathic (peroneal) muscular atrophy, 497 (9)
Cheadle's disease *See Scurvy*, 115 (7)
Chenais Cestan paralysis *See* Cestan-Chenais paralysis
Chiari Arnold syndrome *See* Caudal displacement of brain stem, cerebellum and spinal cord, 461 (0)
Christian Schüller disease 114 (7)
Christian Weber disease *See Nodular, nonsuppurative panniculitis*, 126 (1)
Clark's paralysis *See* Paralysis, cerebral, infantile, 518
Clarke-Hadfield syndrome *See* Pancreatic infantilism, 327 (0)
Claude syndrome, 522
Coats's disease *See* Retinitis exudativa, 553 (5 0)
Colles' fracture, 148 (4)
Cooley's anemia *See* Familial erythroblastic anemia, 250 (9)
Costen's syndrome complex *See* Impaired hearing due to malocclusion of temporo-mandibular joint, *and* Otalgia due to malocclusion of temporomandibular [illegible] 589 (6)
Crohn's disease *See* Ileitis, regional, 304 (9)
Crouzon's disease *See* Hypertelorism, 143 (0)
Cruveilhier's disease *See* Progressive myelopathic muscular atrophy, [illegible]
Cruveilhier Baumgarten cirrhosis *See* Cirrhosis of liver, cong[illegible]
Curling's ulcer *See* Duodenal ulcer due to burns 301 (4)
Cushing's disease *See* Changes in bone associated with pituitary [illegible] Pituitary basophilism 451 (7) Adrenal cortical hyper[illegible]

Dana Putnam syndrome *See* Putnam Dana syndrome
Darier's disease *See* Keratosis follicularis, 124 (0)
Darier Roussy sarcoid 136 (9)
Darling's histoplasmosis *See* Histoplasmosis 110 (2)
Dejerine Landouzy atrophy *See* Landouzy-Déjerine atrophy
Dejerine-Roussy syndrome 522
Déjerine-Sottas neuropathy *See* Progressive hypert[illegible] 505 (9)
Dercum's disease *See* Adiposis dolorosa 114 (7)
Devic's disease *See* Optic neuroencephalomyelopathy, [illegible]
Dietl's crisis *See* Angulation of ureter 349 (6)
Dieulafoy's ulcer *See* Erosion of stomach, 292 (9)
Dresbach's syndrome *See* Sickle cell anemia, 2[illegible]

Fuchs' black spot *See* Choroidal changes in myopia, 541 (4)
Fuchs' conus *See* Conus, oblique, 556 (0)

Garre's disease *See* Osteitis, sclerotic nonsuppurative, 145 (1)
Gaucher's disease, 114 (7)
Gee's disease *See* Celiac disease, 262 (x)
Gelineau's syndrome *See* Narcolepsy, 485 (x)
Ghon tubercle *See* Tuberculosis of lung, childhood type, 199 (1)
von Gierke's disease *See* Glycogenosis, 114 (7), 223 (7)
Gilford Hutchinson disease *See* Hutchinson-Gilford disease
Glisson's disease *See* Rickets, 115 (7)
Goldflam Erb disease *See* Myasthenia gravis, 168 (5 5)
Gowers' syndrome *See* Paroxysmal vasovagal attacks, 484 (x)
Gradenigo syndrome, 522 *See also* Extradural abscess involving petrous bone, 600
Graves' disease *See* Toxic diffuse goiter, 445 (9)
Gubler Millard paralysis *See* Millard Gubler paralysis
Guillain Barré syndrome, 522
Gull s disease *See* Atrophy of thyroid gland with myxedema, 445 (9)
Gull and Sutton's disease *See* Arteriosclerosis, generalized, 233 (9)

Hadfield Clarke syndrome *See* Clarke Hadfield syndrome
Haff disease *See* Poisoning, general, with arsenic 111 (3)
Hallopeau's acrodermatitis *See* Acrodermatitis continua, 125 (1)
Hanot's disease *See* Hypertrophic cirrhosis, 321 (9)
Hansen's disease *See* Leprosy, 109 (1)
Haverhill fever, 109 (1)
Heberden's nodes *See* Degenerative joint disease multiple, due to unknown cause, 162 (9)
Hebra's disease *See* Erythema multiforme exudativum 135 (9)
Hebra's pityriasis *See* Pityriasis rubra, 136 (9)
Henle's warts *See* Hyalin formation in cornea (by endothelial cells) 533 (7)
Henoch's purpura *See* Nonthrombopenic purpura, cause unknown, 243 (x)
Herrick's anemia *See* Sickle cell anemia, 252 (9)
Hirschsprung's disease *See* Dilatation of colon, congenital megacolon, congenital, 305 (0)
Hodgkin's disease, 261 (9)
Hodgkin's disease of skin, 135 (9)
Hoffmann Werdnig syndrome *See* Hereditary familial spinal muscular atrophy, 497 (9)
Horner s syndrome, 522 *See also* Cervical sympathetic paralysis, 507 (4) Enophthalmos due to paralysis of sympathetic innervation, 528 (5 5)
Horton s syndrome *See* Histamine headache, 472 (5 5)
Hunner's ulcer *See* Interstitial cystitis with ulceration, 356 (9)
Huntington's chorea *See* Hereditary chronic progressive chorea, 483 (9)
Hurler's disease *See* Lipochondrodystrophy, 108 (0)

Hutchinson-Boeck disease *See* Sarcoidosis, generalized, 109 (1)
Hutchinson-Gilford disease *See* Progeria, 115 (7)
Hyde's disease *See* Prurigo nodularis, 136 (9)

Jacksonian epilepsy *See* Focal, motor or sensory, cortical seizures, 484 (x)
Jackson's veil or membrane *See* Peritoneal adhesions and bands, congenital, 330 (0)
von Jaksch's anemia *A more specific diagnosis is to be made*
Janet's disease *See* Psychasthenia, 104
Jansky-Bielschowsky disease *See* Bielschowsky-Jansky disease
Jensen's disease *See* Retinochoroiditis juxtapapillaris, 551 (1)

Kahler's disease *See* Myeloma, 250 (8)
Kaposi's disease *See* Xeroderma pigmentosum, 124 (0)
Kaposi's sarcoma *See* Multiple idiopathic hemorrhagic sarcoma, 134 (8)
Kayser-Fleischer ring *See* Pigment deposit in limbus, 534 (9)
Kienböck's disease *See* Osteochondrosis of lunate bone, 152 (9)
Klippel Feil syndrome *Diagnose* Deformity of bone, 144 (1), Tuberculosis of spine, 146 (1)
Koch-Weeks bacillus *See* Hemophilus influenzae, 62
Koch Weeks conjunctivitis *See* Influenzal conjunctivitis, 584 (1)
Köhler's bone disease *See* Osteochondrosis of navicular, 152 (9)
Korsakoff's psychosis, 100 (3)
Krabbe's disease *See* Diffuse, infantile familial cerebral sclerosis, 483 (9)
Kraepelin-Morel disease *See* Morel Kraepelin disease
Krukenberg's spindle *See* Melanosis of cornea, following uveitis, 530 (1), Melanosis of cornea, due to myopia 532 (4)
Krukenberg's tumor *See* Fibrosarcoma mucocellulare carcinomatodes, 414 (8)
Kümmell's disease *See* Compression fracture of vertebra, *under* Fracture, compression, 147 (4)
Kussmaul's disease *See* Periarteritis nodosa, 231 (1)

Laennec's cirrhosis, 321 (9)
Landouzy-Dejerine atrophy *See* Facioscapulohumeral atrophy, 169 (9)
Landry's paralysis *See* Myelitis, ascending, acute, 491 (1)
de Lange's syndrome *See* Dystrophia myotonica, 170 (9)
Launois' syndrome *See* Hypophysial gigantism, 451 (7)
Laurence-Moon Biedl syndrome, 108 (0)
Leber's optic atrophy *See* Hereditary optic atrophy, 505 (9), 559 (9)
Legg-Calvé-Perthes disease *See* Osteochondrosis of capital epiphysis of femur, 152 (9)
Lewandowsky's disease *See* Tuberculid (rosacea like), 127 (1)
Leyden-Moebius' dystrophy *See* Progressive muscular dystrophy, 169 (9)
Lichtheim's syndrome *See* Dorsolateral spinal degeneration, 496 (7)
Little's disease *See* Cerebral spastic infantile paralysis, 475 (0)
Lobstein's disease *See* Fragilitas ossium, 143 (0)
Lorain syndrome *See* Dwarfism and infantilism, 451 (7)

Ludwig's angina *See* Cellulitis of floor of mouth, 263 (1)

Madelung's deformity *See* Radius, idiopathic progressive curvature of, 142 (0)
Majocchi's disease *See* Purpura annularis telangiectodes, 132 (5 0)
Marfan's syndrome *See* Arachnodactyly, 108 (0)
Marie's sclerosis *See* Hereditary sclerosis, cerebellar form, 483 (9)
Marie's syndrome *See* Acromegaly, 451 (7)
Marie-Bamberger disease *See* Secondary hypertrophic osteoarthropathy, 149 (7)
Marie-Strümpell arthritis *See* Arthritis, rheumatoid, of spine, 155 (1)
Marie-Tooth disease *See* Charcot Marie-Tooth disease
Ménière's syndrome, 599 (x), 522
Merzbacher-Pelizaeus disease *See* Aplasia axialis extracorticalis congenita, 474 (0)
Mikulicz's disease *See* Hypertrophy of salivary glands, 277 (9), Achroacytosis of lacrimal gland, due to infection, 580 (1), tuberculous, 580 (1), due to unknown cause, 583 (9)
Millard Gubler paralysis *See* Paralysis, alternating, abducens, facial, hemiplegic, 517
Milroy's edema *See* Familial hereditary edema, 137 (x)
Mitchell's disease *See* Erythromelalgia, 232 (5 5)
Moebius Leyden's dystrophy *See* Leyden-Moebius' dystrophy
Monckberg's arteriosclerosis *See* Arteriosclerosis, medial, especially with calcification, 233 (9)
Moon-Laurence-Biedl syndrome, 108 (0)
Mooren's ulcer *See* Ulcer, rodent, of cornea, 530 (1)
*Morax-Axenfeld conjunctivitis See Conjunctivitis due to Hemophilus duplex (Morax-*Axenfeld bacillus), 584 (1)
Morel-Kraepelin disease *See* Dementia precox, 102 (x)
Morgagni's hydatid *See* Cyst of oviduct, congenital, 408 (0)
Morquio's disease *See* Eccentro-osteochondrodysplasia, 143 (0)
Morton's disease *See* Osteochondrosis of head of metatarsal bone, 152 (9)
Morvan's disease *See* Syringomyelia, 496 (8)

Nägele's pelvis, 434 (4)
Nageotte Babinski syndrome *See* Babinski Nageotte syndrome, 522
Nicolas-Favre-Durand disease *See* Lymphogranuloma, venereal, 259 (1)
Niemann-Pick disease, 114 (7)

Oguchi's disease *See* Night blindness, congenital (Japanese), 551 (0)
Ollier's disease *See* Dyschondroplasia, 143 (0)
Oppenheim's disease *See* Amyotonia congenita, 490 (0)
Oppenheim-Urbach disease *See* Urbach Oppenheim disease
Osgood Schlatter disease *See* Osteochondrosis of tuberosity of tibia, 152 (9)
Osler Vaquez disease *See* Polycythemia, primary, erythremia, 250 (7)

Paget's disease of bone *See* Osteitis deformans, 151 (9)
Paget's disease of nipple *See* Carcinoma simplex of nipple, 140 (8)

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Lymphogranuloma Venereum. The American Medical Association, as well as the National Conference on Nomenclature of Disease, prefers the term "lymphogranuloma venereum" to "inguinal lymphogranuloma," "lymphogranuloma inguinale" or "lymphopathia venerea (um)"

This condition and its name should not be confused with inguinal granuloma (granuloma inguinale)

-Derma, -Dermia. Names of cutaneous diseases properly end in "derma" rather than in "-dermia" These words are of neuter gender (scleroderma circumscriptum)

Mongolians, Mongoloids. Some authors have objected to the term "mongolian idiot" because, they say, some of the persons affected have intelligence above the level of idiocy For this reason they have wished to use "mongolian" or "mongoloid" as a noun to replace "mongolian idiot" *In addition to the undesirability of the use of an adjective* as a noun, neither designation is accurate, for "mongolian" in its strict sense applies to a member of the Mongol or of a similar race and "mongoloid" connotes particularly the physical characteristics The difficulties seem to be avoided if one uses "mongolism" as the name for the condition and speaks of the persons affected as "persons with mongolism" (Though "mongolism" is preferable to "mongolian idiocy," the latter, as well as "mongolian idiot," may be used if an author wishes)

Infection vs Infestation. In accordance with the report of a specially assigned committee of the American Society of Parasitologists, the word "infection" is used with regard to bacteria, protozoa and helminths, while the word "infestation" is reserved for invasion by arthropods, including ticks, mites and insects

-Emia Words Usage among physicians and the definitions in medical and in general dictionaries show great inconsistency in the significance attached to words ending in "-emia" and prefixed by "hyper-" or "hypo-" Sometimes an "-emia" is considered as the presence of a substance in the blood, sometimes, as an excess, sometimes, even as an abnormally small amount Some authors always employ the prefix "hyper-" when they wish to state that an excess was present, others use the "-emia" word—for instance "glycemia"—alone

Antepartum and Prenatal In the periodicals published American Medical Association a distinction is made between th words "Antepartum" is used to refer to the mother before pa or to events or circumstances affecting her during pregnan natal," to refer to the fetus before birth

Epidemic Encephalitis In order to avoid the confusion ing "epidemic encephalitis" to refer to all types of acu well to employ "lethargic encephalitis" or " *nella hirschfeldii*, ate the disease originally descri *henckii*), except when from the types observed in *Pseudomonas jaegeri*, *Phytomonas* anan

The same rules apply to specific names There have bee woman These are written in the feminine when th stantival form (thus, *Clostridium lucilae*)

[10] General Systematic Bacteriology Monographs on Systematic Bacteriolog more Williams & Wilkins Co 1925 vol 1

6

Spelling

Spelling should be consistent; the writer should follow a definite style, preferably that adopted by the periodical to which he wishes to submit a manuscript. Some publications follow conservative spelling, others have adopted reformed spelling. The periodicals of the American Medical Association Press follow leading medical dictionaries such as "Blakiston's New Gould Medical Dictionary" and Dorland's "American Illustrated Medical Dictionary" for the terms which they contain and Webster's "New International Dictionary" for other words (except as they conflict with the rules given in this chapter).

Certain special usages have been adopted, as here listed:[1]

abstracter	argentophilic (adj.)	chlorophyll
accommodate	arrhythmia	cholangitis
acinous	arsphenamine	cholesteremia
adaptable	artefact	cholesterol
adenosine	ascendant (noun)	cholesterosis
adiadokokinesis	bacteremia	choroid
admissible	basophilic (adj.)	cigaret
afterward	benefited	clue
aline	beside (by the side of)	cocaine
alinement	besides (in addition to)	-coccic (adj. ending)
alkalis	blennorrhea	coccidioidal
alkalization	bougienage	combated
alkalize	bromide	confrere
allotted	bromine	cooperation
amebicide	burr	criticize
ampul	calix	critique
anaerobic	calory	crystalline
analogous	calvaria	curet
ancylostoma	cannula	curettage
aneurysm	cantaloup	curettement
angitis	carotene	cyclothymic
ankylosis	catabolism	debride
appendectomy	centrifugation	defense
appendical	centrifuge (verb)	demyelinate

[1] A few words concerning the spelling of which there is no inconsistency have been included in the list because they are frequently spelled incorrectly in manuscripts.

demyelination
descendant (noun)
desiccate
devise* (verb)
diadokokinesis
dietitian
dilatation (state of being dilated)
dilation (act of dilating)
diphtheritic
discernible
disk
dispatch
distention
drachm
dulness
embarrass
embed
embryos
employee
enclosed
endameba
endochondral
endorse
eosinophilic (adj)
epithelization
epithelize
exophthalmos
faker
fantasy
fantom†
fiber
fulfil
fulness
fungous (adj)
fungus (noun)
gage
glycosuria
gray
grip
guaiacol
hemianopsia
hemopoietic
hiccup
hilus
homogenization
homogenize
hyalin (noun)
hyaline (adj)
hypophysial
impracticable
inoculate
insanitary
insure
intern
intrachondrial
intravenous
intussusception
ipsilateral
lacrimal
leukemia
leukocyte
lymphangitis
lyophile
lyse*
lysozyme
malpighian
mamilla
mamillary
mammary
marasmic
microgliocytes
migraine
mold
mosquitoes
mucopus
mucous (adj)
mucus (*noun*)
multilocular
mycotic
myelinate
myelination
myocardial
negligible
occurring
omental
ophthalmology
oxidase
papilledema
pavaex
pedicel (*bot*, stem)
pedicle (*anat*, vertebral process, *med*, stem of tumor)
penile
periangiitis
periarticular
pericholangitis
perilymphangitis
perineural (around the nerve)
perineurial (referring to perineurium)
perisinal
perivascular
peroxidase
phagocytose
phlorhizin
phosphorus
physicochemical (pertaining to physical chemistry or to physics and chemistry)
physiochemical (pertaining to physiologic chemistry)
pipet
piriform, piriformis
pneumo- (of air)
pneumono- (*of the lung*)
pontile
practice
precox
premycotic
preventive
previa

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* Exception to rule

† When "phantom" is used in the sense of a model as in "phantom experiments," the "ph" spelling should be used

prodrome
promoter
pruritus
psychoanalysis
pyoderma (localized patch)
pyodermia (general condition)
quinacrine (atabrine)
radical (adj.)
radical (*chem.*, *group of* atoms, *philol.*, part of word)
radicle (*anat.*, root or rootlike structure)
rale
raphe
reenforce
résumé
rhythm
rime
role
rosette*
sagittal
Salpêtrière
sanatorium
scirrhous (adj.)
scirrhus (noun)
serviceable
[sic]
sinal
skeptical
skilful
sprue
stable
streptotrichal
sulfhydril
sulfobromophthalein
supersede
technic
thermostable
thromboangiitis
thrombopenia
thrombopenic
timbre* (*of tone*)
titer
tonsillitis
toward
translator
tubercular (nodular)
tuberculous (pertaining to tuberculosis)
tuberous
unpractical
vacuolate
vacuolation
venipuncture
ventrifixation
verruca peruviana
verrucous
villous (adj.)
vitamin
ward (suffix)
whisky
wilful
xanthophyll

* Exception to rule

SIMPLIFIED SPELLINGS

The following simplified spellings, which have been approved by a committee of the editors of the publications of the American Chemical Society, have been adopted for the publications of the American Medical Association: *e* for *ae*, as in anesthetic, hemoglobin; *f* for *ph* in sulfur and the sulfur compounds; *f* for *gh*, as in draft; *et* for *ette*, as in pipet; *ze* for *se*, as in analyze; *l* for *ll* in words like distil (when the accent is on the last syllable the *l* is doubled in participles, as *distilled*, also in *mono*syllables, as *still*); *l* for *ll*, as in fulness; *e* for *oe*, as in pharmacopeia; *or* for *our*, as in behavior; *er* for *re*, as in fiber; and *mold* not *mould*, *gage* not *gauge*, and *role* not *rôle*.

For words ending in "*og*" or "*ogue*," the form listed as preferred in "Blakiston's New Gould Medical Dictionary" or in Webster's "New International Dictionary" is used. If the "*og*" and the "*ogue*" forms are given as in equally good usage, the "*og*" spelling is chosen.

NAMES OF PERSONS

Special attention should be given to the spelling of names of persons The American Medical Directory may be consulted for the names of physicians in the United States Directories and lists of physicians of foreign countries are available in medical libraries "Who's Who" may prove valuable Names of well known investigators are found in medical dictionaries When an article or a book is consulted and cited, the author s name should be copied correctly, special attention being given to the insertion of accents in a foreign name

In the following list are a few names that are frequently misspelled

Bence Jones Henry
Berkefeld
Darkshevich
de Fortuyn Droogleever
Déjerine
del Río Hortega Pío
Greifswald
Kjeldahl
Korsakoff
Kustner (Prausnitz Kustner reaction)
Little E G Graham
MacCallum W G
McCollum E V
Metchnikoff
Neelsen (Ziehl Neelsen stain)
Pavlov
Rinne
Šafár
Schick Béla
Shwartzman Gregory (Shwartzman phenomenon)
Tallqvist
Van Gieson
Wassermann

GEOGRAPHIC NAMES

For the spelling of foreign geographic names the decisions of the United States Geographic Board[2] should be followed When two spellings appear in the list, the anglicized form is preferred

In the following list are a few geographic names which are encountered frequently in manuscripts

Berne (Switzerland)
Brussels (Belgium)
Czechoslovak (adj)
Czechoslovakia
Danzig
Frankfort on the Main (Germany)
Goteborg (Sweden)
Leipzig (Germany)
Liége (Belgium)
Munich (Germany)
Netherland (adj)
Netherland East Indies

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[2] First Report on Foreign Geographic Names United States Geographic Board Washington D C Government Printing Office 1932

Netherlands
Prague (Czechoslovakia)
Rumania
San Jose (Calif)
San José (Costa Rica, Uruguay)
Serbia
Yugoslavia
Zurich (Switzerland)

Other rules concerning geographic names will be found in the chapter entitled "Abbreviations"

DIVISION OF WORDS INTO SYLLABLES

The American Medical Association Press follows the four rules established by Funk and Wagnalls for the division of words, namely

Rule I. A consonant or a digraph or trigraph between two vowels *goes into the later syllable when the first vowel is long, half-long or* obscure (except -er as in gen-er-al), as, fa-tal, sea-son, sepa-rate, pro-gram, seda-tive, omi-nous, mecha nism, pecu-liar, pro-phetic, medi-cal, practi-cal, fa-ther, me-tallic, mo-nopo-ly, pre-sent (v), de throne, ca-pacity, pro gress (v), ca-pable, proce dure

Rule II. A consonant between two vowels goes into the earlier syllable when the first vowel is short and has any stress, as, prod-uct, prog-ress (n), rap id, pres-ent (n), vis it, ton-ic, bus-y, crit-ic, proph-et, prophet-ic, cyn-ic, fath-om, flor-id, char-ity, sep-arate

Rule III Adjoining consonants usually separate into two syllables, as, at-tract, con demn, pam-phlet, syl-lable, prac-tical, moun-tain, infan-try, connec-tion, produc-tive, detec-tive, suc ces-sor, defen-dant, cor respon-dent, as sis-tant, mat-ting, com-pel ling, fret-ted En-gland

NOTE Doubled consonants ending a primitive word are kept together before a purely English suffix as, tell ing hiss ing

Rule IV Purely English suffixes (ed, er -est, -eth, -ing, ish, -y) are always kept distinct (except when the terminal letter of the primitive word is repeated, as in compel ling), as, heat-ed, hat-ed, bak-er, speak-er, speak est, wak-eth, search eth, hast ing, baptiz-ing brak-ing, break-ing, freak ish, head-y

NOTE Terminations like al, ant, ent, -ive, or are treated as merely anglicized endings (usually of Latin or Greek words taken into English entire, but with terminal change), not as separable English suffixes Thus such con fusion as music al, practi cal, conjunc tive, disjunct ive, abun dant, defend ant,

which is found in some other works, is avoided The treatment here given makes every one of these terminations begin with the consonant

HYPHENATION

The American Medical Association Press has adopted the policy that hyphens are not necessary when the meaning of double or compound words is clear without them Some dictionaries use more hyphens than seem to be necessary for clearness

A hyphen is not used with a prefix unless mispronunciation or ambiguity might result without it[3] A prefix preceding a proper noun, as in "non-American," requires a hyphen When "non" or "post" is followed by a word beginning with "n" (or an "n" sound) or "t," respectively, a hyphen should be used, as in "non-nitrogenous," "non-pneumatic" and "post-traumatic" Other prefixes ending in a consonant usually are joined without a hyphen to a word beginning with the same consonant Occasionally one of the consonants is dropped For the spelling of such words, the medical dictionaries mentioned or Webster's "New International Dictionary" should be consulted A prefix of more than one syllable ending in a vowel should be hyphenated before the same vowel, as in "semi-isolated" and "hypo-ovarian," except in chemical or other pharmaceutic names One should *write "endoderm and ectoderm" rather than "endo- and ectoderm"*

When two similar vowels come together in the name of a drug, the name is not hyphenated, as in paraamino benzoic acid The prefix "co" when used to refer to an agent is hyphenated, i e, co-worker, co-author When "co" refers to a state or condition, the word is written without a hyphen, i e, coexistent

A few general rules governing the formation of compounds of certain types may be given (These rules do not apply, of course, to words, such as "background," which have long been established as one word and are so listed in general dictionaries)

[illegible]

the hyphen

1 Compounds the second member of which represents an agent, either a person or a thing, or a type of work are written as two words

behavior analyst	metal work
iron worker	needle carrier
lens cutting	

Exception proofreader, proofreading, pacemaker

2 *Letters (designating shape or used with special significance)* need not be joined with a hyphen to a following noun

beta streptococci	X zone
T tube	Y incision

Exception x ray

3 Compounds formed with "end," "back" or "side' are written as two words

back passage	end results
back pressure	side arm
end organ	side effects
end picture	side passage

Exception background

4 Compounds formed with 'after" are hyphenated

after-effects
after-treatment

5 When "over' and "under" indicate degree, they are joined without a hyphen, *when they indicate position, they are used as separate words*

overexcitement	under side
overstimulate	under surface
undernourished	

6 "Cross' is used as an adjective or adverb and is not joined to a following word

cross immunization	cross passage
cross immunize	cross section

7 Combinations of ' self" with a following word are not hyphenated unless they are used as compound adjectives preceding nouns

self adjusting	self respect
self evident	self adjusting bandage

8 'Pseudo ' and ' quasi' are considered as prefixes and are joined to single words without a hyphen Before compound words they should be used as adjectives

pseudo diabetes insipidus
pseudoxanthoma
quasipsychiatric

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Exception proofreader, proofreading, pacemaker

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back pressure	side arm
end organ	side effects
end picture	side passage

Exception background

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after effects
after treatment

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overstimulate	under surface
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cross immunization	cross passage
cross immunize	cross section

7 Combinations of 'self" with a following word are not hyphenated unless they are used as compound adjectives preceding nouns

self adjusting	self respect
self evident	self-adjusting bandage

8 "Pseudo" and "quasi" are considered as prefixes and are joined to single words without a hyphen Before compound words they should be used as adjectives

pseudo diabetes insipidus
pseudoxanthoma
quasipsychiatric

ice bag
ice box
ice pack
ice water
ill health
infra red*
intragroup
iron deficiency state
isamine blue
jawbone
joint disease
keynote
knee joint
knock knee
lactic acid bacillus
lantern slide
life-termer
lip rouge
lipstick
live stock
long-continued (adj)
loud speaker
lunchroom
lymph nodes
makeup
man power
medicolegal
meter candle
methylene blue
micromeasurements
micromethod
microorganism
midbrain
midline
milliampere minute
millicurie hours
milligram hour
mother's milk
motion picture
motorcar
mouth piece
nationwide
near point
near sight
nearby (adj)
nerve head
new growth
newborn
no one
nose clip
nose piece
olive oil
oneself
openmindedness
operating room
orang-utan
osteoid-osteoma
outdoors
outpatient
over-all
overfeeding
overnight (adj & adv)
pacemaker
pansinusitis
past pointing
per cent
per cent hour
pinhead
pinpoint
pinprick
poison ivy
poppyseed oil
postcard
postmortem (adj preceding noun)
post mortem (other constructions)
postoffice
postoperative
printers' ink
privatdozent
product moment method
pulse rate
quicksilver
radioactivity
rat bite fever
Rh factor (when it does not precede a noun)
roundworm
safety pin
Samoa pox
sand fly
school children
seesaw
setup
sheep pox
shellfish
short circuit
short-cut (adj & v)
short cut (n)
shotgun
sickroom
smallpox
so-called
so far as
sometime†
split pea
standpoint
stillborn
stopcock
stopwatch
subject matter
sum total
sun bath
surgeon general
swimmers' itch
symptom complex
test tube
textbook
to wit
today
toe drop
toe nail
tomorrow
tongue-tie
tonight
transatlantic
trypan blue

* Exception to rule
† Often must be two words

tsetse fly
tuning fork
twenty odd
twofold
ultraviolet
un American
vice president
wartime (adj)
water supply
wavelength
well being
wetnurse
whipworm
whooping cough
widespread
worldwide
worth while
wrist drop
wryneck

Use of Hyphens in Compound Adjective Modifiers Hyphens are not necessary in compound adjectives when the meaning and the relation of the double words are clear without hyphens The principles to be set forth here are followed in the periodicals published by the American Medical Association Press, exceptions being made only when misunderstanding or confusion might arise

When one of the elements of a compound adjective contains more than one word, an en dash should be substituted for the hyphen, as in "blood sugar–regulating mechanism," "anti–rabbit kidney" ("anti" modifies "rabbit kidney" not "rabbit"), "multiple sclerosis–like" and "aero–otitis media" It is well, however, to avoid such complicated combinations whenever possible

The combinations that are hyphenated when used as unit modifiers preceding their nouns need not as a rule be hyphenated when used in other constructions, for instance as predicate adjectives, specific mention of the *exceptions will be made at the end of this section*

The following types of compound adjectives do not require hyphens

1 Combinations of an adverb modifying an adjective or a participle

well established principles
ill defined methods
newly born infant
an almost cured lesion
a seldom performed operation
the best known book
little stressed complications
far reaching consequences
less evident manifestations
ever increasing importance

Exception so-called

2 Combinations of an adjective and a noun

connective tissue changes
full term infant
present day practice
prickle cell layer
slit lamp examination
dark field examination
low grade fever
hanging drop culture
old time customs
round cell sarcoma
wet ashing method
worth while investigations

Exceptions a dull, lean ham color (to avoid confusion in meaning)
old school physicians (to avoid confusion in meaning)

3 Combinations of a noun modifier and a noun

slide precipitation test
complement fixation test
roentgen ray dermatitis
bone conduction time
dextrose tolerance tests
blood sugar values
bundle branch block

Exceptions poppyseed oil
cottonseed oil

4 Combinations of a cardinal numeral and a noun

one day period
a 2 day old boy
a two stage operation
a two platform method
two point discrimination
a 14 week fetus

5 Combinations of an ordinal numeral and a noun

second grade pupils
third grade material
a third stage operation
first class methods

6 Combinations in which the name of a color is modified by a descriptive noun or by an adjective, either descriptive or denoting a secondary color (A hyphen is needed, however, when two coordinate adjectives of color are used—see paragraph 10, page 86)

bluish red lesions
olive green lesions

deep blue lesions
slate blue lesions
silvery white lesions
crystal white lesions

7 Miscellaneous more complicated combinations

the dilution and concentration test
forward and backward movements
end to end anastomosis
a side to side connection

Exception up to-date methods (in dictionaries as and pronounced as a true compound word)

The following types of compound adjectives require hyphens

1 Combinations in which a noun is used as the object of the present participle of a transitive verb

habit forming drugs
skin sensitizing substances
blood sugar-regulating mechanism
blood-coagulating med um

2 Combinations of a participle with an adverb or a preposition

heaped up tissue
broken-off ends

3 Combinations of a noun and a part c ple

a breast fed infant
a dark adapted eye
time honored traditions
formaldehyde fixed tissue

4 Combinations of first or last or an ordinal numeral with a participle

the last mentioned author
the first published article
the first removed suture
the third born child

5 Combinations of long and a participle

long standing tuberculosis
~~long-established customs~~ 5
a long-continued discharge
long maintained remissions

6 Combinat ons of two nouns used coordinately to modify another noun

calcium phosphorus ratio
the Binet Simon test

7 Combinations of two adjectives used coordinately to modify a noun

toxic infectious dystrophy
manic-depressive psychosis

8 Combinations of two adjectives or a noun and an adjective to modify a noun

tenth normal hydrochloric acid
all important principles
stony hard lesions
species specific reactions
air tight room
water proof bandage
water resistant fabric
Wassermann fast serum

9 Combinations of an adjective and a participle

full grown rabbits
double nucleated cell
broad shouldered men
American born children
medium sized papules
normal looking skin

Exception newborn infant

10 Combinations of two coordinate adjectives of color

blue black lesions
yellow green discoloration

11 Combinations of a preposition and a noun

under water therapy
before treatment tests

The following combinations should be hyphenated in any construction in which they occur

1 Combinations of two coordinate adjectives

The psychosis was considered to be manic depressive

2 Combinations of two coordinate nouns or adjectives of color

The skin was blue black

VARIANT ENDINGS OF ADJECTIVES

One of the reforms in spelling adopted by many medical publications is the elimination of the "al" ending on adjectives This reform was first strongly emphasized by Dr George M Gould,[4] in 1896

[4] Gould G M Concerning medical language J A M A 26 1007 (May 23) 1896

"The incongruities of medical nomenclature," he said, "and the stock still standing of irrational conservatism lead one to wonder if we are ever to awaken to the need of philologic civilization

"One of my four kind critics once wrote me remonstrating, solely on the ground of euphony, against cutting the *al* off the tail end of adjectives . . . Either one thing or the other, if you refuse to say *hemic* and *theoretic*, then you must not say *scientific* and *hydrochloric* If you make us say *chemical* and *theoretical*, then, like a sucking dove we will roar you for *consistency* and ask that you be *scientifical*, or else we will prescribe *nitrical* and *hydrochlorical* acid for your alarming *gastrical* torpor and obstinacy"

Dr Gould submitted the following alarming example of the effects of carrying the "al" ending to extremes

SOME SCIENTIFIC DIFFICULTIES The patient was ascitical and cyanotical had an anemical (dicrotical or anacrotical) murmur, splanchnical and splenical dullness was pronounced Neither the allopathical nor the homeopathical consultants could determine whether the affection was *of extrinsical or intrinsical origin, whether anabolical, katabolical, atrophical*, septicemical, lithemical, leutical, hemical hemolytical, thermical, tabetical, hepatical or encephalical The specialists were called in and laryngoscopical, ophthalmoscopical, gynecological and otoscopical examinations were made The laryngoscopical man said a diphtheritical membrane was forming, and the phrenical nerve was pressed upon The next averred the difficulty was esophorical or exophorical, that a blenorrhagical inflammation, perhaps a rheumatical iritis, existed After an endoscopical examination the gynecological expert said pelvical (or pubical) disorder was present and a bad cystical spermatical and chorionical state of affairs The ear man claimed that the disease was specifical, that the otical ganglion was syphilitical and its condition pathognomonical The diagnostical and prognostical difficulties were certes becoming most prolifical!

As to therapeutical measures one advised cardiacal and tonical treatment, another hypodermical one thought hydriatical methods good, another antiphlogistical, while still another suggested hypnotical and soporifical agents Galvanical and faradical electricity, as well as statical and franklinical, were advised The surgeon after a diagnostical incision (under anesthetical precautions) spoke of a plastical operation Caustical applications to the throat were considered good, and the exhibition of prussical, or of borical nitrical and hydrochlorical acids, perhaps also carbolical with malical and acetical acid drinks The general physician thought antineuralgical and antirheumatical prescriptions sufficient, but the obstetrician would have added oxytocical ones

The patient died of alcoholical paretical dementia, superinduced, it is thought, by despair at the orthographical and phonetical conservatism of progressive Americans

The following list represents the usages of such adjectives with variant endings adopted by the American Medical Association Press [4] The "ic" ending is preferable in practically all medical or other scientific words, whether or not they are included in this list (Exceptions to this general rule are italicized for ready reference)

- aeronautic
- alphabetic (pertaining to an alphabet)
- *alphabetical* (in the order of the letters of the alphabet)
- analytic
- anatomic
- anthropologic
- anthropometric
- *arithmetical*
- astronomic
- *atypical*
- bacteriologic
- *biochemical*
- biographic
- biologic
- botanic
- bronchoscopic
- *chemical*
- chronologic
- classic (typical)
- *classical* (pertaining to classical civilization and languages)
- *clinical*
- criminologic
- cylindric
- cytologic
- dermatologic
- dynamic
- economic (pertaining to economics)
- *economical* (thrifty)
- elliptic
- embryologic
- empiric
- endemic
- entomologic
- epidemic
- epidemiologic
- ethnographic
- etiologic
- etymologic
- galenic (*galenical* is the noun)
- genealogic
- generic
- geographic
- geometric
- gonococcic
- gynecologic
- hemianopic
- histologic
- historic (celebrated in history)
- *historical* (relating to history)
- hypodermic
- hypothetic
- *hysterical*
- immunologic
- *logical*
- macroscopic
- magic (pertaining to magic)
- *magical* (resembling the effects of magic)
- meteorologic
- *methodical*
- microscopic
- morphologic
- mystic
- neurologic
- nosologic
- obstetric
- ophthalmologic
- optic (pertaining to the eye)
- *optical* (pertaining to light or to the science of optics)
- otolaryngologic
- paradoxic
- parasitic
- parasitologic
- parenthetic*

* Except in the sense of "full of or addicted to the use of parentheses" in which 'parenthetical' should be used

[4] It will be noted that for a few words in the list two endings and two meanings are indicated An interesting discussion of such distinctions is given by H W Fowler (A Dictionary of Modern English Usage, Oxford, Clarendon Press, 1930 p 249, article on "-ic(al)")

pathogenic
pathognomonic
pathologic
pediatric
periodic
pharmaceutic (drugs)
pharmaceutical (pharmacy)
pharmacologic
philosophic
physiologic
problematic
psychiatric
psychic
psychologic
rhinologic
rhythmic
roentgenologic
serologic
sociologic
spheric (pertaining to the heavenly bodies)
spherical (sphere shaped)
staphylococcic
statistical
streptococcic
symmetric
teleologic
theoretic
therapeutic
topical
topographic
toxicologic
typographic
zoologic

POSSESSIVE WITH PROPER NAMES

The use of the possessive case with the names of physicians associated with diseases, tests and other entities frequently creates a problem The solution may be simplified if the question is considered as one of logical English usage rather than as one involving a set form for each phrase In general, the use of the possessive form relates the thing designated to the worker for whom it is named more emphatically and personally than does the use of the name as an adjective modifier

The following list gives examples of correct usage

Wassermann's test became popular
The Wassermann test is widely used
A Wassermann test was made
Three Wassermann tests were made
Wassermann tests are made daily
Ewing's sarcoma was described in detail
The Ewing sarcoma is one of the important types
A Ewing tumor was found
Six Ewing tumors were studied
Parkinson s disease is well known
The man had Gaucher's disease
Flexner's dysentery is different from Sonne s
Flexner dysentery was prevalent in that country
The Betz cell is distinctive
Betz cells were observed
Examination showed numerous Hassall corpuscles
Meckel s diverticulum is present in some persons
Bence Jones protein was present

The patient had Argyll Robertson pupils
The Argyll Robertson pupil is unmistakable
He had Hutchinson teeth
Shive's solution is prepared as follows
Shive's solution (or Shive solution) was used
The Masson stain was employed
Masson's stain is easily prepared
He took some Masson stain

It will be noted that with an article, direct or indirect, the possessive form is not used, the name becoming a noun used as an adjective modifier In instances in which an article is not used, the possessive form may or may not be employed, depending on the degree of personal relationship, or possessiveness and the emphasis that one wishes to express

In instances in which two names joined with a hyphen are used as a modifier, the possessive form should never be used

Niemann Pick disease
the Prausnitz-Kustner phenomenon
a Binet Simon test
Hand-Schuller Christian disease

Possessive of Names Ending in a Sibilant. The possessive of a word of more than one syllable which ends in "s" or in some other sibilant is regularly formed by the addition of an apostrophe When a word ends in "ce," however, or when the final sibilant is silent, an apostrophe followed by "s" is added

Hippocrates' writings	Horace's odes
Collins' method	Bourgeois's works

To form the possessive of a monosyllable, an apostrophe followed by "s" is added

Bass's sign	Wise's comments

PLURALS

It is the policy of the American Medical Association Press to use an English plural whenever one is available The following forms have been adopted

Accepted English Plurals

abscissas	fibulas	plasmas
acetabulums	fistulas	plexuses
amebas	foramens	polyps (plural of polyp)
anlages	formulas	primiparas
antrums	foveas	psammomas
aortas	ganglions*	pterygiums
apexes	glaucomas	radiuses
appendixes	glomuses	retinas
areolas	gummas	sanatoriums
auras	gymnasiums	sarcomas
axillas	hematomas	scapulas
cannulas	hernias	scleras
carcinomas	indexes	scotomas
chondromas	inoculums	septums
cochleas	lacunas	sequestrums
collyriums	lamellas	serums
comedos	laminas	solariums
condylomas	lipomas	spectrums
conjunctivas	lumens	sputums
corneas	maculas	stigmas
craniums	maxillas	stomas
curriculums	meatuses	stromas
deliriums	mediums (except for "media" of eye)	syllabuses
dictums	meniscuses	symposiums
duodenums	microns	synechias
endotheliomas	myceliums	tibias
enemas	myomas	traumas
epitheliomas	myxomas	tympanums
erythemas	nebulas	ulnas
exanthems	ostiums	uveas
femurs	patellas	vaginas
fetuses	perineums	
fibromas		

* In the *Archives of Neurology and Psychiatry* the plural "ganglia" is used

Foreign Plurals as Yet Retained

alveoli	cortices	emboli
ampullae	criteria	fenestra
apparatus	data	fibrillae
bacteria	desiderata	foci
bronchi	diverticula	fossae
calices	dorsa	fundi

fili
humeri
larvae
maxima
media (of eye)
minima
nevi
nidi
nuclei
ova
papillae
pelves
phenomena
plasmodia
pleurae
polypi (plural of polypus)
protozoa
puncta
quanta
rami
rugae
sarcinae
sequelae (plural of sequela)
spermatozoa
striae
uteri
verrucae
vertebrae
viscera

Names of tumors ending in "-oma," as well as all other words with that ending, have the English plural, "-omas" (except, of course, when they are followed by Latin adjectives and are consequently treated as Latin words; such problems are discussed in a later section of this chapter).

For the names of organisms used as common nouns English plurals should be employed whenever they can be formed easily (amebas, spirochetes, uncinarias, rickettsias, but streptococci and staphylococci). All names ending in "a" are given English plurals.

When the scientific name of an organism is used in the plural, to indicate species or types of a genus, a Latin plural is used. One says, for instance: "*Spirochaeta pallida* is one of the most important Spirochaetae."

LATIN TERMINOLOGY

As stated in an earlier section of this book, the use of English names for diseases and anatomic structures is desirable. If, however, an author wishes to use Latin terms, he should be careful to see that the form is correct. When Latin anatomic names are used, the BNA terms should be employed.

Latin terminations of adjectives are often used incorrectly. Errors are especially common in dermatology, though they are by no means confined to this specialty. The accompanying table shows the gender of certain types of nouns according to their terminations.

The greatest source of error is provided by words ending in "a." All of these are feminine except hydroa and those in which the "a" is

preceded by "m." All words ending in "ma" are neuter, such as erythema (bullos*um*), chloasma (uterin*um*), xeroderma (pigmentos*um*). Verruca is often a stumbling block, though according to the rule it is obviously a feminine noun and thus requires a feminine adjective (verruca plan*a*)

Gender of Nouns According to Terminations

Masculine	*Feminine*	*Neuter*
US second declension, lupus, nevus	IS psoriasis, dermatitis	US third declension, ulcus, corpus
	A tinea, verruca—*except* hydroa and words ending in MA	MA sarcoma, erythema, chloasma
ES herpes	AS callositas, fragilitas	AS erysipelas
	IES scabies, canities	
EN lichen	E acne	UM molluscum
		U cornu
		EN sudamen
X anthrax	X cicatrix pompholyx	
ER zoster		
IO pernio		
DO comedo	DO livedo	ON epidermophyton, kerion
	GO impetigo, vitiligo	

Mistakes are constantly made in the words *Spirochaeta* (feminine) and *Treponema* (neuter) The correct uses of these words with the adjectives pallidus, -a, -um and pertenuis, -is, -e are Spirochaeta pallid*a* and Spirochaeta pertenu*is*, and Treponema pallid*um* and Treponema pertenu*e*

Words of the second declension ending in "us," such as lupus (erythematos*us*), are masculine, whereas words of the third declension ending in "us" are neuter, such as ulcus (moll*e*) and corpus (lute*um*).

Nouns ending in "is," with a few unimportant exceptions, are feminine Examples are dermatitis (factiti*a*), neuritis (nodos*a*) and arthritis (fungos*a*)

Callositas is a feminine noun, but erysipelas is neuter One is saved from mistakes in terminology because these words seldom are followed by qualifying adjectives

A glaring error which occurs frequently in medical writing con-

cerns the comparative forms of the words magnus (large) and parvus (small) The comparative forms are, respectively, major and minor, and are declined in the nominative as follows

	Masculine	*Feminine*	*Neuter*
SINGULAR	major	major	majus
PLURAL	majores	majores	majora
SINGULAR	minor	minor	minus
PLURAL	minores	minores	minora

The correct term designating the large lip of the vulva is labium maj*us* (labium min*us* for the smaller lip) The correct plural forms are labia majora and labia minora, in regard to these, mistakes are rarely made

Errors are made at times in speaking of a condition which is unilateral Either the adjective unilateralis or the two words unius lateris may be used, unius being the genitive singular of the adjective unus -a, -um and lateris the genitive singular of the noun latus (nevus unius lateris) The expression unius lateralis is incorrect

The plural of the Latin word punctum (a point) is punct*a*, though this is not infrequently misspelled punct*ae*, as if the nominative were punct*a*

For further information on Latin terminology the reader is referred to an article by Dr Howard Fox [6]

Diphthongs When Latin or Greek words have been taken into the English language, diphthongs need not be retained, and in the publications of the American Medical Association such words are written without diphthongs—e g , "hemorrhage," "anemia," "polycythemia" Diphthongs are not used in Latin names of diseases They are used in names of microorganisms when these names are officially adopted by scientific societies

The diphthongs "ae" and "oe" should be written with separate letters in Latin and in German words and in English words derived from Latin or from Greek through Latin when these words retain the diphthong The ligatures "æ" and "œ" should be used in Old English, in French and in some other modern languages

[6] Fox Howard Common errors in dermatologic terminology Arch Dermat & Syph 7 499-504 (April) 1923

7

Capitalization

Periodicals vary in their use of capitalization The following principles are observed in the publications of the American Medical Association Press

A proper noun designating an individual person or thing or a derivative of a proper noun which retains close association with the word from which it originates should be capitalized An adjective formed from a proper noun which has acquired a special meaning, however, is not capitalized (jacksonian convulsions, roentgen rays)

Common names derived from scientific names of plants, animals or bacteria are not capitalized when they occur in the text (bacillus, spirochete, ameba) In a scientific name, however, the name of the genus is capitalized (*Spirochaeta pallida*)

A latinized name of a person used in the genitive case should be considered as still a proper noun and hence should be capitalized (fissura Rolandi, ductus Botalli), except in the scientific name of an organism (*Sporotrichum beurmanni*)

Of course, one begins each sentence with a capital, as well as a complete sentence that is quoted directly Capitals are also used for the initial letters of words (other than conjunctions, articles and prepositions of less than five letters) and of the elements of compound words (except for the suffix "like") in headings of tables and in paragraphed side headings One does not capitalize the words "table," "figure," "plate," "case" and "experiment" when they occur in the text

It is not desirable to capitalize the names of chemical elements or compounds used as part of the text

The following rules apply

Capitalize

1 Revolutionary War, War of the Rebellion, Civil War, Spanish-American War, Federal Food, Drug and Cosmetic Act, Harrison Narcotic Law, Maternity and Infancy Act, Hippocratic Oath, Southern states, Mississippi River, Indiana Avenue, Cook County,

Christian science, Christian scientist, First Street East, First Street N W , Old World, New World, Continent, Continental, Orient, Occident, Soviet, Woulfe bottle, Berkefeld filter, Bunsen burner, Petri dish, the Harvey Lecture

2 Cited titles of articles and books (But see pages 119-131 for style in footnotes and bibliographies)

3 Both parts of a compound word (except for the suffix "like") in headings, proper names and titles His residence is on Thirty-Fifth Street, Dr Smith read a paper on "After-Effects of Measles" and one on "Tumor-like Changes in the Skin "

Write in lower case

1 Vienna school, city of New York, state of New York, state, government, federal, gram-positive, gram-negative, mendelian, jacksonian, freudian, cesarean, eustachian, meibomian, haversian, sylvian and other adjectives formed from proper nouns, plaster of paris, sudan IV, prussian blue, india ink, achilles tendon, pyrex, a m , p m , no , case 1, figure 3 First and Main streets, Southern states

Write in capitals	*Write in lower case*
Court (in Medicolegal Court)	court (elsewhere)
North, South, East, West (when they refer to geographic divisions) Far East, Middle West	north, south, east, west (when they refer to direction)
	spring, summer, autumn, winter
Senate, House (United States)	senate, house (of a state)
Congress (United States)	congress (international gathering)
Fellow (of A M A)	fellow (of some other body)
President, Secretary (of A M A)	chairman, secretary (of a section of A M A)
President Elect (of A M A)	
President of the United States	governor, mayor, king pope emperor, shah or any other foreign potentate
Association (meaning A M A)	association (meaning any other association)
Annual Session (of A M A)	annual session (of some other organization)
Section (of A M A)	section (of some other organization or institution)
Editor (of A M A or of the publication in which an article appears)	editor (of some other organization or publication)

Write in capitals	*Write in lower case*
Council (of A M A)	council (of some other organization)
Sixty Ninth Regiment	Seventh and Sixty Ninth regiments
World War I II	great war
Von Jaksch (at the beginning of a sentence)	von Jaksch (within a sentence)
Chicago Medical Society	Upshur and Sangamon County medical societies
first word after a colon if it introduces a complete sentence	first word after a colon if in a mere clause or list
Gram Roentgen as proper names	gram positive roentgen ray

8
Abbreviations

In scientific writing, abbreviations should be used only when necessary for condensation or to facilitate reading In the publications of the American Medical Association Press only a few standard abbreviations are used in the text If special abbreviations are employed in tabular or other condensed material, they should be explained in a footnote

ADDRESSES

In the following list are given the standard abbreviations for the names of the states of the Union

Ala	Ia	Mich	N Y	Tenn
Ariz	Ida	Minn	Neb	Tex
Ark	Ill	Miss	Nev	Va
Calif	Ind	Mo	O	Vt
Colo	Kan	Mont	Okla	W Va
Conn	Ky	N C	Ore	Wash
D C	La	N D	Pa	Wis
Del	Mass	N H	R I	Wyo
Fla	Md	N J	S C	
Ga	Me	N Mex	S D	

(No abbreviation is provided for Utah, which should never be abbreviated) As a rule, the names of states containing only four or five letters should be spelled out (Idaho, Iowa, Maine, Ohio and Texas) The names of the other states are abbreviated when they follow the name of a city or county but not when they are used alone (in Akron, Ohio, in Kentucky, in Cook County, Ill , in Paterson, N J)

The names of territories and possessions of the United States should not be abbreviated

It is not necessary to mention the state after the names of the following large cities unless it is desirable for some particular reason

Baltimore	Denver	New Orleans	St Paul
Boston	Detroit	New York	Salt Lake City
Brooklyn	Indianapolis	Oklahoma City	San Francisco
Buffalo	Iowa City	Omaha	Seattle
Chicago	Los Angeles	Philadelphia	
Cincinnati	Milwaukee	Pittsburgh	
Cleveland	Minneapolis	St Louis	

When a Canadian city is mentioned, both the name of the province (written in full) and "Canada" should follow the name (Exception For Montreal, Toronto and Quebec the name of the province may be omitted)

The name of a foreign country should never be abbreviated The name of the country should be mentioned after the name of a foreign city unless it is clear from the text what country is concerned

Before a name "Saint" is abbreviated (St Louis, St Paul) "Fort," "Mount" and "Santa" or "San," however, are not abbreviated (Fort Duquesne, Mount Vernon, Santa Barbara, San Francisco)

Street Addresses In ordinary text matter, at the end of an article, and in general wherever space permits, street addresses should be written out in full When abbreviation is necessary, the following forms are used

441 Vine St	302–1st Ave
80 N Grand Blvd	227–16th St
50 W 50th Ave	501 1st St N W
5 Bay State Rd	16th and P Sts
601 Fullerton Parkway	1500 Medical Arts Bldg

When a mailing address which includes a postal zone number is cited, no comma is used after the name of the city, but the zone number and name of the state are separated by a comma Chicago 10, Ill

FOREIGN ADDRESSES

66 Boulevard Saint Michel, Paris 6ᵉ, France
2 Rue Casimir Delavigne Paris 6ᵉ France
Sternwartenstrasse 8, Leipzig C 1 Germany
Rambler de Cataluna 72, Barcelona Spain
Calle de Villarroel 17, Barcelona Spain
Via Farini 6, Bologna, Italy
9 Wimpole St , London W 1 England
Mexico, D F , Mexico

NAMES OF PERSONS

No abbreviations except the initials should be used for the names of persons (Thomas E Clark or T E Clark, not Thos E Clark, Charles E McFarlane or C E McFarlane not Chas E McFarlane)

Titles and Degrees Before a proper name one should never spell out "Mr," "Mrs" or "Dr" "Major" should never be abbreviated Other titles are abbreviated when they are used before the first name or initials but written in full when used before the family name alone

Prof A T Reed	Pres M A Brown	Colonel Dupont
Capt Charles Ryerson	Professor Walton	President Truman
Supt J A Milton	Lieutenant Myerson	

Degrees and titles following names are abbreviated In capital lines in headings, degrees are set in large and small capitals (PH D, PH G)

In the periodicals published by the American Medical Association it is the policy not to include after the name of an author who is a Doctor of Medicine any degree of rank lower than that degree, for instance, one would write "Robert Clark, M D, PH D," but not "Robert Clark, M A, M D'

Abbreviations of Degrees

Bachelor of Arts	B A
Bachelor of Divinity	B D
Bachelor of Law	B L
Bachelor of Laws	LL B
Bachelor of Medicine	M B
Bachelor of Philosophy	Ph B
Bachelor of Science	B S
Doctor of Dental Surgery	D D S
Doctor of Divinity	D D
Doctor of Laws	J D or LL D
Doctor of Letters	Litt D
Doctor of Medicine	M D
Doctor of Philosophy	Ph D
Doctor of Science	D Sc
Fellow of the American College of Surgeons	F A C S
[illegible]	F C A P
	R C P
land)	F R C S
Graduate in Pharmacy	Ph G

Master of Arts	M A
Master of Dental Surgery	M D S
Master of Science	M S
Master of Surgery	M S

DATES

In the following list are given the standard abbreviations for the names of the months

Jan	Apr	Oct
Feb	Aug	Nov
Mar	Sept	Dec

"March" and "April" should be spelled out except when it is necessary to abbreviate them in tabular matter No abbreviation is used for "May," "June" or "July" The names of the other months should be abbreviated when both the day and the year are given (Feb 29, 1948) When only the month and the day are given, or only the month and the year, the name of the month should be spelled out (September 3, October 1947)

Frequently in descriptions of cases or of experiments, several dates in the same year are mentioned consecutively In such instances it usually is advisable to mention the year but once giving only the month and the day for subsequent dates as in the following passage

> A man aged 60 was admitted to the hospital on March 5, 1947 He was operated on on March 25 and was dismissed on May 10 In June 1948 he was readmitted

"In 1947–1948" may be used to designate the year that includes part of both "From 1946 to 1948" should be used instead of "1946–1948" in text matter

WEIGHTS MEASURES AND TIME

Units of the metric system (except "meter," "liter" and "kilometer," which are spelled out except in tables, and "microgram," which preferably should not be abbreviated) are abbreviated after numerals but not otherwise A few other abbreviations are similarly treated a m , p m , C , F , r, D For example

10 a m	in the morning in the forenoon
7 p m	in the afternoon
50 r	measured in roentgens

3 cm	marked off in centimeters
4 Kg	per kilogram
10 mg	in each milligram
120 mm	a few millimeters
98° F	the Fahrenheit scale
1 D	the unit was the diopter
40° C	the centigrade thermometer

The following abbreviations for the units of the metric system are those recommended in the "Pharmacopoeia of the United States" These abbreviations are the same in both the singular and the plural

M = meter
dm = decimeter
cm = centimeter
mm = millimeter

Gm = gram
dg = decigram
cg = centigram
mg = milligram

Kg = kilogram
L = liter
dl = deciliter
cc = cubic centimeter
cu mm = cubic millimeter

ABBREVIATIONS IN TABULAR MATTER OR FORMULAS

The following standard abbreviations are used only in tabular matter or formulas (these abbreviations are the same in the singular and in the plural)

Å	angstrom unit	μμ	millimicrons
a c	alternating current	ma	milliampere
ax	axis	ma min	milliampere minute
cyl	cylinder	mc	millicurie
d c	direct current	mc hr	millicurie hour
d v	double vibration	mEq	milliequivalent
db	decibel	mg hr	milligram hour
dr	drachm	min	minute
ft	foot	mM	millimol
gal	gallon	mo	month
Gm cal	gram calory	oz	ounce
gr	grain	p d	*prism diopter, papilla diameter*
hr	hour	pt	pint
in	inch	qt	quart
kv	kilovolt	sec	second
kv a	kilovolt ampere	2d	second
lb	pound	3d	third
μ	microns	yd	yard

ABBREVIATIONS PERMISSIBLE IN OPHTHALMOLOGY

Abbreviations of measurements of squint, especially in series of values

HP	hyperphoria
HT	hypertropia (with L or R)
XT and ST	exotropia and esotropia (with L or R)

Similar abbreviations

General

Δ	prism diopters
f c	foot candles
p d or P D	papilla diameter
R E and L E	right eye and left eye
D	diopters (with values)

sph (for spherical) and cyl (for cylindrical) in such expressions as ' + 1 25 D sph ' ' − 2 00 D cyl '

Omission of D and perhaps the sph and cyl in refractions

Thus + 1 25 sph − 2 00 cyl , axis 90

Or

+ 1 25 − 2 00, axis 90

Near used alone in expressions like "accommodation for *near* was normal "

Perimetry "field for 3/300 white ' or "field for white, 3/300 '

MISCELLANEOUS ABBREVIATIONS

"Day' and ' days" should never be abbreviated, even in tables

Names of chemical elements should be abbreviated only in tabular matter and formulas Chemical symbols are not followed by a period (Ca, Hg)

One writes "an angle of 45 degrees ' Symbols may be used if the expressions are complex and recur frequently, as in "angles of 15° 30′ 15″ and 45° 6′ " The symbol for "degrees" may be omitted in expressions of temperature, thus, one may write "100 F " and "39 C " rather than "100° F " and "39° C "[1] The word "degree" should be

[1] It is necessary however to speak of ' a rise of 1 degree (F) " Body temperature should be expressed preferably according to the Fahrenheit scale If it is given in centigrade degrees the Fahrenheit equivalent should follow in parentheses

spelled out in expressions of latitude and longitude if minutes and seconds are not mentioned, as in the phrase "a difference of 3 degrees of latitude" In some expressions the word "degree" may be omitted, as in "latitude 42 north" Write "8° 45′ 15″"

In tables both clock time and extent of time may be written in figures The time 25 minutes and 16 seconds past 3 o'clock may be written "3 25 16", a period of 14 hours, 45 minutes and 30 seconds may be written "14° 45′ 30″"

British money, when set in figures, is expressed as follows £23 7s 3d

American money is expressed as follows $15, $20 42, 56 cents

In tables, signs and abbreviations should be used in place of words as much as practicable Use + and − for positive and negative, >, < and = for greater than, less than and equals, ♂ or □ for male and ♀ or ○ for female The sign % may be used in tables, but not elsewhere

In text matter, a reaction or degree of change should be expressed with words rather than with symbols (4 plus, positive, negative, plus-minus) *In tables, symbols may be used as is most convenient in the individual instance*

The basal metabolic rate is expressed in text matter as "−5 per cent" or "+18 per cent"

Dimensions are given as "4 by 5 by 7 inches," not "4 × 5 × 7 inches"

In ordinary matter, expressions of dosage should be spelled out Write "4 grains (0 25 Gm) three times a day," not "gr iv, t i d"

Except where condensation is an object, as in tables, one should write "eighth-molar" or "tenth-normal," not "M/8," "decinormal" or "N/10" If it is desirable for some special reason to use the fraction, the slant instead of the horizontal line should be used to separate the numerator and the denominator At times, when large or complicated fractions are involved, it may be clearer to write "0 25 normal" or "0 03 normal" Multiples of normal should be expressed as "three times normal" rather than as "3/N"

The abbreviation for the expression "1 to 1,000" is "1 1,000" Either form may be used, according to the author's preference

SCIENTIFIC NAMES OF ORGANISMS

Bacteria. After the name of a species has been given in full, as "*Spirochaeta pallida*," the generic name should be abbreviated, as "*S pallida*," throughout the paper

This rule applies only to the *same species* For instance, after *Streptococcus fecalis* has been mentioned once, "*Str fecalis*" is used, but if another species, such as *Streptococcus impetiginis*, is then mentioned, the name must be written out the first time it appears

In tables, abbreviations may be used if the full name is given in the text, either preceding or following the table If some organisms are mentioned in the table which are not referred to in the text and the application of this rule would give the table an awkward appearance, it usually is better to write out all the names in the table If there are only two or three organisms which are not mentioned in the text and they are species of a common genus, such as *Staphylococcus*, the abbreviation for which is unmistakable, or of a genus other species of which are mentioned so frequently in the text that there is no danger of confusion, the names of these species may be abbreviated in the table

A name should be written in full in the heading for an abstract or a report in a society transaction and also the first time it appears in the text In society transactions, after a name has been given in full once in a report, it should be abbreviated throughout that report and the discussion thereon, if the same organism is mentioned in another report the name should again be written in full

Fungi and Parasites Names of organisms which are well known to physicians, such as *Epidermophyton* and *Taenia* are subject to the rules that govern the abbreviation of names of bacteria There are many names, however, both of genuses and of species, which do not yet appear in medical dictionaries In the publications of this press abbreviations are not used, as a rule, unless the name appears in "Blakiston's New Gould" or Dorland's "American Illustrated" medical dictionaries together with a definition If some of the names mentioned in an article have usable abbreviations and others do not, it is well to spell out all the names in the article

Other Generic Names Names of plants, animals and insects should not be abbreviated

MISCELLANEOUS RULES

The expression "figure 1" should be spelled out in ordinary text matter One writes "fig 1" in parentheses with a lower case *f* but "Fig 1" at the beginning of a legend with a capital *F* When "Figure 1" comprises the whole legend, it should be spelled out and capitalized Examples follow

> The heart (fig 1) shows decided enlargement
> The heart shows decided enlargement (see figure 1)
> *Fig 1 Enlargement of the heart*

Write "fourth cervical" and "second lumbar," rather than "C IV" or "L 2," except in tabular matter

"BCG" and "QRS" are written without spacing "P-R," "S-7" and "RS-T" intervals are hyphenated

"BAL" (British antilewisite) is used without periods or spacing

"U S P," "N N R," "N F" and "BNA" are written without regular spacing These abbreviations may follow the name of a drug *without the interposition of a comma*

Tuning forks are designated as follows C-2, C-1, C, c-1, c-2, etc, capital letters being used for sounds below middle C and lower case letters for those above it

Both in the text and in tabular matter, "no 3" should be used rather than "number 3" Whenever possible, "no" should be omitted (communication 3, Jaeger's test type 1)

When "page 6" appears in the text, the word "page" should not be abbreviated

Abbreviations of names of periodicals are given at the end of this book, and other abbreviations used chiefly in footnotes and bibliographies are given in the chapter entitled "Bibliographic Material" (page 119)

Abbreviations used only in prescriptions (or occasionally in tables) are given in the chapter entitled "Pharmaceutic Products and Prescriptions" (page 115)

Rules for the use of numbers, giving information on when they should be spelled out and when set in figures, are included in the chapter entitled "Numbers" (page 107)

9

Numbers

Numbers appear frequently in scientific—especially in statistical—articles, it is sometimes difficult to determine when they shall be spelled out and when put in figures The American Medical Association Press has therefore adopted various general and specific rules governing such usage in its publications

Numbers of patients or cases or, when considered analogously, animals or specimens should be put in figures If "one" is used in an indefinite rather than in a numerical sense (for instance, if "a patient" might be substituted), it may be spelled out

Numbers designating measurements should, in general, be put in figures

Miscellaneous numbers, concerning which instructions are not included in the specific rules to be given, should be spelled out for the numbers one to nine, for 10 and above figures should be used

A hospital of 49 rooms was built
We examined three fingers
He had consulted four physicians

If, however, in an individual article there are several large numbers of items of any one category—for instance, injections or hospitals—it is advisable to use figures for all the numbers in that group

SPECIFIC RULES

Set in figures both whole numbers and fractions denoting

1 Numbers of cases or patients or, when considered analogously, animals or specimens in text and in roman and italic sideheads when corresponding figures appear in the text

2 Values for measurements, such as temperature, pulse rate, respiratory rate, blood count, specific gravity, age, weight, height length, breadth, area, capacity, degrees, percentages and ratios (The amount of a dose, as a measurement, is put in figures, but the number of doses is considered with the miscellaneous numbers in the paper and spelled out)

3 Dates Jan 18, 1948, January 18

4 Clock time 7 a m , 6 30 p m , 15 minutes and 20 seconds past 4 p m

5 Sums of money $250 $1 50 75 cents £15 8s 3d

6 In tabular matter and in the headings of tables, every number that can be so expressed

7 Numbers indicating serial position page 22, case 3, table 5 chapter 10 figure 1 group 1 type IV grade 2 cat 3 A dog 1096 (note omission of comma)

8 Experimental and laboratory results which involve duration of time

9 Numbers above nine representing length of time for 30 minutes after 10 hours 15 minutes past 1 p m 18 years ago a 24 hour culture

10 Any one digit number used in conjunction with a two digit number 8 to 12 cell layers

Spell out

1 Ordinal numbers the eighth patient on the tenth day in the eighteenth century

2 Numbers used as nouns or in an indefinite sense in the nineties per hundred per thousand by fifties per hundred grams (but per 25 pounds)

3 Numbers of *doses or injections families litters cultures determinations, chapters*

4 *All numbers except those of four digits in titles or subtitles of articles in titles of abstracts and in titles cited in footnotes*

Numbers are spelled out as follows

one-half the patients (hyphenate where of is omitted)
half the patients
a third of the patients
three fourths of the patients
one half hour
half an hour
a half hour
two and a half hours
three and one half hours
increased by two thirds
twenty four
one hundred and twenty six
twenty-eight hundred
two thousand three hundred and sixty
one million, three thousand five hundred and one

A fraction should be hyphenated when it is used as an adjective, as in the phrase "one-half hour," or when ambiguity might result without the hyphen when it is used as a noun, the hyphen may be omitted

MISCELLANEOUS EXAMPLES

3 drops capsules tablets
2 tablespoons 2 teaspoons
3 disk diameters
4 fingerbreadths
1 erythema dose
½ erythema dose
1 skin unit
50 roentgens
2 unit skin doses
three doses of neoarsphenamine
12 injections of a bismuth preparation
temperature of 96° F
a rise of 1 degree (F)
4 plus *(not four plus or ++++ except in tables)*
The epithelium contained from 2 to 10 cell layers
His diet included one apple twice a day and two glasses of water each morning and each afternoon
a 6 month fetus a 9 week fetus a 10 day embryo
a 10 mm embryo
a 6 day old child a 10 hour old boy an 8 week old girl a 10 month old child a 30 year old man
a six week period
after six weeks treatment
after six weeks of treatment
1947–1948 (the year including parts of both)
1946 to 1948
1947 and 1948
6 year molars
6 pounds 8 ounces
3 feet 6 inches
She was six months pregnant
The child was born one month prematurely
a 24 hour culture
size 7 4A shoes
2d
3d
pneumococci of type III the type V pneumococcus Pneumococcus type I
per hundred cubic centimeters per thousand grams[1] per 10 Gm
in each hundred cubic centimeters [or] in each 100 cc

---

[1] Per hundred cubic centimeters is written rather than per 100 cc because the latter phrase would be read per *one hundred* cubic centimeters an idiom not likely to be encountered Per 10 Gm is clear since the phrase can be read in only one way Either in each 100 Gm or in each hundred grams is idiomatically correct consequently either may be used according to an author s preference

in each 10 Gm
layers I to VI of the cortex
leads I, II and III[2] of the electrocardiogram
the T wave in lead I, T_3, the QRS complex in lead III[3]
6 Gm is used
5 drops was given
radioactive phosphorus—P^{32}
the valence of a radical—PO_4

EQUIVALENT VALUES

Metric Equivalents In scientific matter in the publications of the American Medical Association the metric units are given first, followed, in parentheses, by values according to other systems In some instances an exact equivalent is needed—for instance, when a small dose of a drug or the thickness of a lens is concerned In others, an approximate equivalent is preferable The diameter of a cutaneous lesion measuring 2 inches should be expressed as "5 cm" rather than as "5 08 cm" One should consider the accuracy with which measurement of the thing under consideration could be made

Centigrade measurements may be converted to Fahrenheit multiply by 9, divide by 5 and add 32 Fahrenheit may be converted to centigrade subtract 32, multiply by 5 and divide by 9

In computing approximate equivalents, one should compute the exact equivalent to from one to three decimal places and then take the nearest approximate value, rather than multiply by an approximate value (such as 2 5 cm for 1 inch rather than 2 54 cm) Approximate equivalents for metric and apothecaries' systems may be found in most books issued under the auspices of the Council on Pharmacy and Chemistry Included are "New and Nonofficial Remedies," "Useful Drugs," "National Formulary" and "Epitome of the United States Pharmacopoeia and National Formulary"

In the following tables are given equivalent values that are frequently needed

---

[2] Most journals devoted to cardiology use '*leads I II and III*' This form has been used in the special journals published by the Association *The Journal* uses 'leads 1, 2 and 3' because arabic numerals are preferred whenever possible

[3] 'The T wave in lead III' is perhaps preferable to "T_3." When many values are given however, the shorter expression is convenient It is advisable to be as consistent as possible within an article and not to jump unnecessarily from one form to the other

AVOIRDUPOIS WEIGHTS

OZ.	GM	KG	LB	GM	KG	LB.	GM.	KG
1	28 35		61	27 669 11	27 7	131	59 420 55	59 4
2	56 70		62	28 122 70	28 1	132	59,874 14	59 9
3	85 05		63	28,576 30	28 6	133	60 327 73	60 3
4	113 40		64	29 029 89	29 0	134	60 781 33	60 8
5	141 75		65	29 483 48	29 5	135	61 234 92	61 2
6	170 10		66	29 937 07	29 9	136	61 688 51	61 7
LB	GM	KG	67	30,390 66	30 4	137	62,142 10	62 1
¼	113 40	0 11	68	30,844 26	30 8	138	62,595 69	62 6
½	226 80	0 23	69	31,297 85	31 3	139	63 049 29	63 0
¾	340 19	0 34	70	31 751 44	31 8	140	63 502 88	63 5
1	453 59	0 5	71	3..,205 03	32 2	141	63 956 47	64 0
2	907 18	0 9	72	32 658 62	32 7	142	64 410 06	64 4
3	1 360 77	1 3	73	33,112 21	33 1	143	64,863 65	64 9
4	1,814 37	1 8	74	33 565 81	33 6	144	65,317 25	65 3
5	2 267 96	2 3	75	34 019 40	34 0	145	65 770 84	65 8
6	2,721 55	2 7	76	34 472 99	34 5	146	66,224 43	66 2
7	3 175 14	3 2	77	34 926 58	34 9	147	66,678 02	66 7
8	3,628 73	3 6	78	35 380 18	35 4	148	67,131 62	67 1
9	4 082 33	4 1	79	35 833 77	35 8	147	67,585 21	67 6
10	4 535 92	4 5	80	36,287 36	36 3	150	68 038 80	68 0
11	4 987 51	5 0	81	36 740 95	36 7	151	68,492 39	68 5
12	5 443 10	5 4	82	37 194 54	37 2	152	68 945 98	68 9
13	5,896 69	5 9	83	37 648 14	37 6	153	69,399 58	69 4
14	6 350 29	6 4	84	38 101 73	38 1	154	69 853 17	69 9
15	6 803 88	6 8	85	38 555 32	38 6	155	70,306 76	70 3
16	7,257 47	7 3	86	39 008 91	39 0	156	70 760 35	70 8
17	7 711 06	7 7	87	39 462 50	39 5	157	71,213 94	71 2
18	8 164 65	8 2	88	39 916 10	39 9	158	71,667 53	71 7
19	8 618 25	8 6	89	40 369 69	40 4	159	72,121 13	72 1
20	9,071 84	9 1	90	40 823 28	40 8	160	72,574 72	72 6
21	9,525 43	9 5	91	41 276 87	41 3	161	73 0 8 31	73 0
22	9 979 02	10 0	92	41 730 46	41 7	162	73 481 90	73 5
23	10 432 61	10 4	93	42 184 05	42 2	163	73,935 50	74 0
24	10 886 21	10 9	94	42,637 65	42 6	164	74 389 09	74 4
25	11 339 80	11 3	95	43 091 24	43 1	165	74,842 68	74 8
26	11 793 39	11 8	96	43,544 83	43 5	166	75,296 27	75 3
27	12 246 98	12 2	97	43,998 42	44 0	167	75 749 86	75 7
28	12,700 57	12 7	98	44 452 01	44 5	168	76 203 46	76 2
29	13,154 17	13 2	99	44 905 61	44 9	169	76,657 05	76 7
30	13,607 76	13 6	100	45,359 20	45 4	170	77 110 64	77 1
31	14 061 35	14 1	101	45 812 79	45 8	171	77,564 23	77 6
32	14 514 94	14 5	102	46 266 38	46 3	172	78,017 82	78 0
33	14 968 53	15 0	103	46 719 97	46 7	173	78 471 42	78 5
34	15 422 13	15 4	104	47 173 57	47 2	174	78 925 01	78 9
35	15 875 72	15 9	105	47,627 16	47 6	175	79 378 60	79 4
36	16 329 31	16 3	106	48 080 75	48 1	176	79 832 19	79 8
37	16,782 90	16 8	107	48 534 34	48 5	177	80,285 78	80 3
38	17 236 49	17 2	108	48 987 93	49 0	178	80 739 38	80 7
39	17 690 09	17 7	109	49 441 53	49 4	179	81 192 97	81 2
40	18 143 68	18 1	110	49 895 12	49 9	180	81 646 56	81 6
41	18 597 27	18 6	111	50 348 72	50 3	181	82,100 15	82 1
42	19,050 86	19 1	112	50 80.. 30	50 8	182	82,553 74	82 6
43	19 504 45	19 5	113	5 255 89	51 3	183	83 007 34	83 0
44	19 958 05	20 0	114	51 709 47	51 7	184	83 460 93	83 5
45	20 411 64	20 4	115	52 163 08	52 1	185	83 914 52	83 9
46	20,865 23	20 9	116	52 616 67	52 6	186	84 368 11	84 4
47	21,318 82	21 3	117	53 070 26	53 1	187	84 821 70	84 8
48	21 772 41	21 8	1 8	535 3 85	53 5	188	85 275 30	85 3
49	22,226 01	22 2	119	53 977 45	54 0	189	85 728 89	85 7
50	2..,679 60	22 7	120	54 431 04	54 4	190	86 182 48	86 2
51	23,133 19	23 1	121	54 884 63	54 9	191	86,636 07	86 6
52	23 586 78	23 6	122	55 338 22	55 3	192	87 099 66	87 1
53	24 040 37	24 0	123	55 791 81	55 8	193	87 543 26	87 5
54	24 493 97	24 5	124	56 245 41	56 2	194	87 996 85	88 0
55	24 947 56	24 9	125	56,699 00	56 7	195	88,450 44	88 5
56	25 401 15	25 4	126	57 152 59	57 2	196	88,904 03	88 9
57	25 854 74	25 9	127	57 606 18	57 6	197	89 357 62	89 4
58	26 308 33	26 3	128	58 059 77	58 1	198	89 811 22	89 8
59	26 761 93	26 8	129	58 513 37	58 5	199	90 264 81	90 3
60	27,215 52	27 2	130	58 966 96	59 0	200	90 718 40	90 7

in each 10 Gm
layers I to VI of the cortex
leads I II and III[2] of the electrocardiogram
the T wave in lead I T_3 the QRS complex in lead III[3]
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[3] The T wave in lead III is perhaps preferable to ' T_3 " When many values are given however, the shorter expression is convenient It is advisable to be as consistent as possible within an article and not to jump unnecessarily from one form to the other

MEASURES OF LENGTH

FT	IN	CM	FT	IN	CM	FT	IN	CM
	¼	0 64	2	7	78 74	5	4	162 56
	½	1 27	2	8	81 28	5	5	165 10
	¾	1 91	2	9	83 82	5	6	167 64
	1	2 54	2	10	86 36	5	7	170 18
	2	5 08	2	11	88 90	5	8	172 72
	3	7 62	3	0	91 44	5	9	175 26
	4	10 16	3	1	93 98	5	10	177 80
	5	12 70	3	2	96 52	5	11	180 34
	6	15 24	3	3	99 06	6	0	182 88
	7	17 78	3	4	101 60	6	1	185 42
	8	20 32	3	5	104 14	6	2	187 96
	9	22 86	3	6	106 68	6	3	190 50
	10	25 40	3	7	109 22	6	4	193 04
	11	27 94	3	8	111 76	6	5	195 58
	12	30 48	3	9	114 30	6	6	198 12
1	1	33 02	3	10	116 84	6	7	200 66
1	2	35 56	3	11	119 38	6	8	203 20
1	3	38 10	4	0	121 92	6	9	205 74
1	4	40 64	4	1	124 46	6	10	208 28
1	5	43 18	4	2	127 00	6	11	210 82
1	6	45 72	4	3	129 54	7	0	213 36
1	7	48 26	4	4	132 08	7	1	215 90
1	8	50 80	4	5	134 62	7	2	218 44
1	9	53 34	4	6	137 16	7	3	220 98
1	10	55 88	4	7	139 70	7	4	223 52
1	11	58 42	4	8	142 24	7	5	226 06
2	0	60 96	4	9	144 78	7	6	228 60
2	1	63 50	4	10	147 30	7	7	231 14
2	2	66 04	4	11	149 86	7	8	233 68
2	3	68 58	5	0	152 40	7	9	236 22
2	4	71 12	5	1	154 94	7	10	238 76
2	5	73 66	5	2	157 48	7	11	241 30
2	6	76 20	5	3	160 02	8	0	243 84

MEASURES OF LENGTH—(*Continued*)

1 ft. = 0 3048 meter (m)
10 ft. = 3 048 meters
1 000 ft = 304 8 meters [or] 0 3 kilometer (km)
1 mile = 1 6093 km

MEASURES OF AREA

1 sq in = 6 4516 sq cm
1 sq ft = 0 0929 sq m.
1 sq yd = 0 8361 sq m

MEASURES OF VOLUME

1 cu in = 16 387 cu cm
1 cu ft = 0 0283 cu m
1 cu yd = 0 7646 cu m

MEASURES OF CAPACITY

Fluidrachms	Ml	Liters	Fluidounces	Ml	Liters
1	3 7	0 004	1	29 57	0 03
2	7 39	0 007	2	59 15	0 06
3	11 09	0 011	3	88 72	0 09
4	14 79	0 015	4	118 29	0 12
5	18 48	0 018	5	147 87	0 15
6	22 18	0 022	6	177 44	0 18
7	25 88	0 026	7	207 02	0 21
8	29 57	0 030	8	236 59	0 24
			9	266 16	0 27
			10	295 73	0 30
			11	325 31	0 33
			12	354 88	0 35
			13	384 46	0 38
			14	414 03	0 41
			15	443 61	0 44
			16	473 18	0 47
			17	502 75	0 50
			18	532 33	0 53
			19	561 90	0 56
			20	591 47	0 59

ENUMERATIONS

In enumerations, periods follow arabic numerals which designate complete sentences, items in lists separated by periods and tabulated items Parentheses are used around arabic numerals which designate clauses or listed items separated by commas or semicolons An example of enumeration of complete sentences is given in the chapter entitled "The Subject and the Material," in the section on conclusions (see page 29) Examples of other types of enumeration follow

The cases were grouped according to the result of treatment as follows

1 Cases in which the result of treatment was favorable tension normal, visual acuity 1/2 or more

2 Cases in which the result of treatment was less favorable tension normal, visual acuity from 1/60 to 1/3

3 Cases in which the result of treatment was unfavorable tension raised or visual acuity less than 1/60 or eye removed

There are three essential factors in the development of experimental cholesterol arteriosclerosis (1) cholesterol in the diet, (2) hypercholesteremia and (3) injury to the intima of the arteries

10

Pharmaceutic Products and Prescriptions

In medical writing—particularly that dealing with the treatment of disease—medicaments are mentioned frequently In the publications of the American Medical Association Press, established products are designated by the official English names listed in the "Pharmacopoeia of the United States" A convenient volume, "Epitome of the Pharmacopoeia of the United States and the National Formulary," is issued by the Council on Pharmacy and Chemistry of the Association Each year the Council on Pharmacy and Chemistry publishes a book, "New and Nonofficial Remedies" in which are listed and described the newer preparations which it has approved When such a product is mentioned in one of the publications of the Association, the name given in this book in boldface 8 point capitals is used When a proprietary preparation that has not been accepted by the Council is mentioned in a paper, the most accurate descriptive name available should be employed, and the exact chemical composition should be included In the spelling of chemical terms it is well to follow the rules adopted by the American Chemical Society

It is the policy of the Association to reject articles about drugs when there is insufficient evidence of their efficacy and harmlessness A paper describing a thorough scientific evaluation of the effects of a new product, however at times is acceptable

TRADE MARKED DRUGS

In the periodicals published by the American Medical Association, the names of trade marked drugs are not capitalized They are quoted *in toto* the first time they are used, e g, "paredrine hydrobromide ophthalmic," "paredrine hydrobromide aqueous", after that, shortened terms, such as ophthalmic "paredrine" and aqueous "paredrine," in quotation marks are used

The quotation marks are used, not to distinguish between official

and unofficial products, but to show the identity and specialness of trade-marked products

In those instances in which a trade-marked preparation has been accepted by the Council on Pharmacy and Chemistry, (N N R) in parentheses is placed after the name in the text the first time it appears

The same policy is followed with respect to the names of drugs and physical therapy apparatus

PRESCRIPTIONS

That prescriptions may appear properly in a published article, it is well to have them uniform in style and either wholly in Latin or wholly in English The use of English is preferable Many newer products do not have latinized endings An example of a prescription in English is

	Gm or Cc		
Magnesium oxide	10		ʒ iiss
Bismuth subcarbonate	20		ʒ v
Syrup of acacia		or	
Water each in sufficient quantity			
To make	200		℥ viii

Directions Take 1 tablespoon as required after meals, plain or in water

The same prescription in Latin would be

	Gm or Cc		
℞ Magnesii oxidi	10		ʒ iiss
Bismuthi subcarbonatis	20		ʒ v
Syrupi acaciae	q s	or	
Aquae destillatae	q s		
Ad	200		fl℥ viii

M Sig Take 1 tablespoon as required after meals plain or in water

In Latin prescriptions certain words may be abbreviated

caps (capsula)
cerat (ceratum)
comp (compositus)
conf (confectio)
cort (cortex)
decoc (decoctum)
elix (elixir)
emp (emplastrum)
enem (enema)
fldxt (fluidextractum)
garg (gargarisma)
gland (glandula)
glyc (glyceritum)
inf (infusum)
lin (linimentum)
liq (liquor)
mist (mistura)
ol (oleum)

pil (pilula)
pulv (pulvis)
spt (spiritus)
suppos (suppositorium)
syr (syrupus)
tr, tinct (tinctura)
trit (tritura)
troch (trochiscus)
ung (unguentum)
vin (vinum)

It is well to avoid abbreviating the names of the drugs themselves Some abbreviations may be read in various ways if not made clear by the context, for example, "chlor," which may be read "chloralum," "chloridum" or "chloras", "sulf," which may be read "sulfur," "sulfidum" or "sulfas", and "ext col," which may be read "extractum colchici" or "extractum colocynthidis"

The American Medical Association Press has adopted certain rules with a view to increasing the use of metric measurements as they appear in prescriptions Whenever possible, the metric measurements alone are used or the metric values are given first, followed by the apothecaries' If the apothecaries' units must for any reason be given first, metric equivalents are always inserted after them It is particularly bad form to mix two systems of measurement, for example, to state "Dissolve 10 Gm of —— in 2 fluidounces of water" or "100 cc contains 30 grains of —— "

To avoid confusion, "grams" is abbreviated "Gm," with a capital "G", grains is written in full except when lack of space necessitates abbreviation, in which case "gr," with a lower case "g," is used

ENDOCRINE AND PHARMACEUTIC NOMENCLATURE

Progress in the use of endocrine preparations and of anti-infective agents has been so rapid that there is much confusion in the minds of physicians concerning the use of these preparations, their sources and potencies and their identities Unless correct nomenclature is used in medical writing and speaking, confusion will continue to exist The Council on Pharmacy and Chemistry has sponsored numerous reports appealing for a scientific nomenclature Attention is directed to the 1942 edition of "Glandular Physiology and Therapy" (Chicago American Medical Association) and to a statement published in 1943 in *The Journal of the American Medical Association* (Oct. 9, pp 351-35?) on the naming of endocrine preparations This report provides a classification which makes clear even the status of products such as

the estrogens, progestins and androgens It also emphasizes the importance of using correct terminology instead of proprietary names or vague nondescriptive terms At times it may even be necessary to indicate the source of the endocrine product For example, is it from the human placenta or from the urine of stallions or of pregnant mares or of pregnant women?

Other Council reports on this subject may be found in *The Journal* and in the Annual Reprint of the Reports of the Council for various years Because the word "hormone" frequently is applied erroneously, it probably is best to avoid this term and use "endocrine substance" or "principle" or "factor" It also is best to make reference whenever possible to the standardization of these preparations in terms of weight of the active components and not to units

Other terms widely misapplied are "female sex hormone," "male sex hormone" and "corpus luteum hormone" They should be referred to as "estrogen," "androgen" and "progestin," and further defined according to their exact nature Likewise, "thyroid extract" is commonly misused when the writer actually means desiccated thyroid This is not an extract but simply the dried gland

When sulfanilamide, sulfapyridine and sulfathiazole were introduced as therapeutic agents, the term "sulfa drugs" was born There are few more meaningless words than "sulfa", it has no scientific standing and should never be used even in a popular sense When a writer wishes to use a broadly descriptive word, reference should be made to "sulfonamide," a term that has meaning and is recognized as being reserved for this new class of chemotherapeutic agents

Another word that has assumed almost household familiarity is "antibiotic" It is now reserved by the majority of physicians for extracts from substances such as molds, fungi and bacteria, and is applied to drugs such as penicillin, streptomycin and tyrothricin These three drugs have markedly different properties and describing any one of them simply as an antibiotic would not provide any worthwhile information There may even be reason, as more knowledge is gained, to mention the type of penicillin under discussion, i e, penicillin F, G, K, X or whatever other substances may be uncovered

11
Bibliographic Material

SECURING A BIBLIOGRAPHY

In investigating the literature on a subject, begin preferably with the most accessible indexes *The Journal of the American Medical Association* publishes at the end of each volume an index of the original articles appearing in its pages and of articles in other periodicals that have been abstracted in *The Journal* during the previous six months Many of the articles there mentioned will contain references to other articles, these in turn mentioning still others Thus, more and more references are accumulated, until perhaps one finds an article by a reliable writer who has summarized the literature to the date of his publication

The Quarterly Cumulative Index Medicus If a more complete study of a subject is contemplated, the *Quarterly Cumulative Index Medicus*, published by the American Medical Association, should be consulted This index was launched in 1916, under the title *Quarterly Cumulative Index*, and it was continued under that title until 1927 At that time it was consolidated with the *Index Medicus*, and the title was changed to *Quarterly Cumulative Index Medicus* From 1927 to 1931, inclusive, this index was published jointly by the American Medical Association and the Army Medical Library Since 1932 it has been supported and published entirely by the American Medical Association In it, all authors and subjects are listed alphabetically, and there is sufficient cross indexing to make the finding of references simple

This index is published four times a year, the first and third numbers are temporary (bound in paper), and each covers periodicals received during a three month period, the second and fourth numbers (bound in cloth) cover periodicals received during a half-year Each number is published as soon as possible after the completion of the period it covers The *Quarterly Cumulative Index Medicus* includes a list of the medical periodicals indexed in it, with full information con-

cerning them, as well as a list of new medical books and a list of publishers The list of books is arranged by authors, and a subject classification of the same material follows

The Index Medicus The *Index Medicus* was established in 1879 and, with the exception of the years 1899 to 1903, was published continuously until 1927 At that time it was combined with the *Quarterly Cumulative Index* Originally the *Index Medicus* was published monthly, the references were listed under general headings, such as surgery, physiology and neurology At the end of a year the individual numbers could be bound, and a general subject and author index was issued for the complete volume In 1921 a new plan was adopted From then until 1927, when it ceased publication, this index appeared quarterly, with the subjects arranged in alphabetical order, and at the end of the year an authors' index was supplied for the complete volume

The Index-Catalogue of the Library of the Surgeon General's Office The Surgeon General's library, in Washington, D C, contains the greatest collection of medical periodicals, pamphlets and books in any medical library in America In 1948 the library contained approximately 480 950 volumes and 703,750 pamphlets—a total of 1,184,700 In 1876 John Shaw Billings published a specimen sheet of a combined index catalogue with authors and subjects arranged in alphabetical order Established by act of the Congress of the United States in 1879, the first volume of such an index catalogue was issued in 1880 This work has now reached its fifty-sixth volume and is in its fourth alphabetical set, covering the entire material in the Surgeon General's library While it is the most valuable medical reference work available, it is never wholly up to date The volumes come out slowly, and when the last volume of a series is issued the first volume is many years behind There is in the library, however, a "manuscript" index on file cards which is completely up to date and from which the "Index-Catalogue" is made In using the "Index-Catalogue," one should bear in mind that it does not contain entries to authors of articles appearing in periodical literature except in the first series, authors are alphabetically arranged under subject only Alphabetical entries for authors are limited to authors of books and separately published pamphlets

How to Secure the Complete Literature. If the complete literature on a subject is desired, one will do well to begin with the available volumes of the "Index-Catalogue of the Library of the Surgeon General's Office." Having secured the references there listed, one may consult the volumes of the *Index Medicus* and the *Quarterly Cumulative Index* up to recent date and the index to the bound volumes of *The Journal* up to 1916, and then complete the references with the *Quarterly Cumulative Index Medicus*. In various articles on the list thus compiled mention will undoubtedly be made of others. These references may be added to the bibliography.

Seldom is it desirable to review the complete literature on a subject in an article for publication in a periodical. The science of medicine has grown so vastly and its book and periodical literature is so extensive that complete reviews repeat themselves endlessly in the literature.

It is no longer excusable to bolster a report of a case or an article with a compilation of references to all similar cases that have been reported in the literature. The growth of medical literature has made this not only a useless but also an unwarranted task. Reference should be given only to articles that illuminate the subject. Hardly any one detail of a well prepared and well written article will give a better and clearer idea of a writer's methods or foster greater confidence in the accuracy and soundness of his views than well chosen, well arranged, absolutely correct references. References should be given only to articles that have been directly utilized by the author presenting them. To republish long bibliographies taken from other authors is a form of plagiarism which burdens the literature with uninteresting and worthless lists of titles.

SECURING MEDICAL PERIODICALS

A physician who has access to a good medical library probably will be able to find bound volumes of the most important medical periodicals. If he wants to consult the more recent literature on any particular subject, he may secure periodicals published in the United States by ordering directly from the publishers or by borrowing them from the library of the American Medical Association. *The Journal*

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the American Medical Association, with the exception of its own publications On making proper deposit, a physician also may arrange to borrow from the Surgeon General's library

ARRANGEMENT AND FORM OF BIBLIOGRAPHIC REFERENCES

Footnotes In the publications of the press of the American Medical Association, footnotes that refer to the article as a whole are placed on the title page An asterisk or a dagger is used only when it is necessary definitely to connect the footnote with one author or with a specific part of the title Ordinarily, an asterisk is used for the first footnote that requires a special designation and a dagger for the second A dagger is always used, however, for a footnote recording the death of an author Such a footnote should read "Dr Brown died on March 10, 1948" When a paper has been read at a meeting of a society, a footnote to that effect should be given

Examples of footnotes on a title page follow

VITAMIN C AND PIGMENT

THEODORE BROOKS, M D

CHICAGO

From the Department of Dermatology College of Medicine University of Illinois, Service of Dr F E Sampson

Read before the Section on Dermatology and Syphilology at the Eighty Seventh Annual Session of the American Medical Association, Kansas City, Mo, May 14, 1936

ANATOMIC FEATURES OF THE CARDIAC ORIFICE OF THE STOMACH

WITH SPECIAL REFERENCE TO CARDIOSPASM

FREDERICK C LENDRUM, M D, Ph D *

DETROIT

* Former Fellow in Medicine, the Mayo Foundation

Abridgment of a thesis submitted to the faculty of the Graduate School of the University of Minnesota in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Medicine

PATHOGENESIS OF NONCASEATING TUBERCULOSIS OF THE SKIN AND LYMPH NODES

RALPH R MELLON, M D

AND

LAWRENCE G BEINHAUER, M D

PITTSBURGH

From the Institute of Pathology (Dr Mellon) and the Department of Dermatology (Dr Beinhauer) of the Western Pennsylvania Hospital

Example of a title in which the author's position is given

LAUREN V ACKERMAN, M D

Assistant Professor of Pathology, Washington University of Medicine

ST LOUIS

MORRIS MOORE, M D

Mycologist to the Barnard Free Skin and Cancer Hospital

ST LOUIS

References to the literature and comments on various matters mentioned in an article that are to be used as footnotes should be numbered consecutively throughout the article, with corresponding superior reference figures in the text When the same reference is used twice, instead of duplicating the note or using the words ' loc cit ," it is better to repeat in the text the number of the original note In the publications of the American Medical Association Press, multiple superior figures are not used When an author wishes to refer to several articles at one point, he should combine them in one footnote (as in examples 20 and 25 in the list at the end of this chapter—see pages 129, 130) or mention the authors' names individually in the text with one superior figure for each If several references combined in one footnote are referred to individually later, they may be numbered *a*, *b*, etc (examples 26 to 28 of the list—see page 130)

In the publications of the American Medical Association Press, when it is necessary to delete a footnote after the type is set, the superior figure—say 6—in the text should be deleted, so that the

reader will not look to the foot of the page needlessly, and "6 Footnote deleted on proof" should be substituted for the discarded reference Conversely, if an author finds it necessary to insert a footnote after the type is set—say between 10 and 11—the reference may be numbered "10a" so that the numbers of the following footnotes need not be changed

A note appended to an article after the type is set, unless a mere footnote, should be considered as part of the text matter and set in 10 point type If it contains bibliographic references, these should be used as footnotes, numbered consecutively following the last footnote in the text

Although in the printed article footnotes appear at the bottom of the page on which they are mentioned in the text, in the preparation of the manuscript they should be typed, in double space, on a separate page following the text matter

Bibliographies References are grouped at the end of a paper in the form of a bibliography only when an exhaustive review of the literature has been made on a subject of sufficient importance to warrant such a survey The references constituting a bibliography may be arranged either alphabetically or chronologically, or in exceptional instances according to some other logical scheme The alphabetical arrangement is usually preferable, for it makes it easy for the reader to locate an author's name quickly

References in Society Proceedings, Discussions and Legends for Illustrations Footnotes are not used in discussions of original articles or in society proceedings References should be incorporated in the text, in parentheses The form used is the same as that for references used as footnotes except that the names of periodicals are italicized

When a reference mentioned in a legend is cited in the text also the superior figure designating the footnote to the text should be used in the legend instead of repeating the reference (example A, following) When a reference given in a legend is not cited in the text, it should be incorporated in the legend (examples B and C, following) (It cannot safely be numbered consecutively with the footnotes in the text because until the printed pages are made up it is difficult to

determine where an illustration will be inserted) When one reference is mentioned in several legends but not in the text, it may be possible to include a sentence concerning it in the text and to insert a footnote, a superior figure may then be used each time the reference is cited

The following examples of legends are in the proper form

A Fig 1 *A* is a demonstration of suture method 4, the Halsted presection suture technic, used only on the anterior aspect of the ostium *B* is a demonstration of suture method 5, the ordinary continuous circular through and through suture, which when used anteriorly inevitably causes macroscopic mucosal eversion, as shown at *a* (Martzloff and Suckow[1])

B Fig 10 In the middle of the figure is a myelophage (*M*), which is a large vacuolated body, the processes (*P*) of which emanate from the nucleus (*N*) an oligodendrocyte forming a ring around the enclosures of myelin (two dark fragments) This section (Hassin George B Histopathologic findings in a case of superior and inferior polioencephalitis, *Arch Neurol & Psychiat* 5 552 [May] 1921) is from a brain of a patient with so-called superior and inferior polioencephalitis Bielschowsky's stain × 1 200

C Fig 1 *A B* and *C*, dorsal views of brains of rabbits showing areas of cortex removed in three experiments *D*, dorsal view of the brain of a rabbit in which the area outlined by a broken line represents the precentral motor area as shown by C Winkler and A Potter (An Anatomical Guide to Experimental Researches on the Rabbit s Brain, Amsterdam W Versluys, 1911) The numbers on the opposite hemisphere indicate points stimulated to obtain movements of (*1*) the face and jaws, (*2*) the head and neck and (*3*) the scapula

When material is reproduced from another source, permission for reproduction should be secured from the author and the publisher for the better periodicals and books are copyrighted

References in Tables Frequently bibliographic references for authors are listed in a table Such references cannot be assigned numbers consecutive with those in the text as it is impossible to tell where a table will be inserted on the printed page The plan that has been followed in the publications of the American Medical Association Press is to use in tables the superior figures employed in the text for references there cited and to include in the table itself the references not cited in the text, as shown in table 3, page 126

This plan may result in a slight inconsistency of form The alternative, however—that of including all the references in the table when only some of them are cited in the text—has the disadvantage of failing to indicate to the reader that certain references are mentioned

in the text as well as in the table and of making the table occupy more space

TABLE 3—*Normal Range of Venous Pressure in Adults*

Observer	Method	Range Mm Water
Owens L B J Lab & Clin Med 18 266 1932	Indirect	35 90
Eyster J E A and Middleton W S Arch Int Med 34 228 (Aug) 1924	Indirect	50–60
Runge H Arch f Gynäk 22 142 1924	Indirect	48–66
Moritz and von Tabora[a]	Direct	40–80
Berghausen O J Med 15 22 1934	Direct	40 80
Caughey[ab]	Direct	40–80

References to periodicals in tables should include the name of the author, his initials, the name of the periodical and the volume, page and year The title should not be included unless there is special reason References to books should be in the usual complete form

The method of inserting in tables footnotes other than bibliographic references will be discussed in the chapter on tables and charts (see page 168)

Form for References An incorrect reference may cause the reader to waste much time in looking for an article It leads, moreover, to the assumption that the author did not actually consult the work but copied the reference The author should insure accuracy by seeing each article himself and verifying the data Special attention should be given to the spelling of foreign names and of words in foreign titles Accents should be included as they appear in the names and titles cited An English title should be quoted exactly unless there is an error that is obviously typographic The accuracy of a reference is further substantiated by making it complete

A complete reference to a book contains the following information (example 5 in the list—see page 129)

1 Author s surname and initials
2 Title of the book (capitalize all main words)
3 Edition
4 Place of publication
5 Name of the publisher
6 Year of publication

7 Volume, if more than one has been published
8 Page

A complete reference to an article in a periodical contains (examples 2 to 4 in the list—see pages 128, 129)

1 Author s surname and initials
2 Title of the article (capitalize only initial word and proper nouns)
3 Name of the periodical, abbreviated according to the form given in the *Quarterly Cumulative Index Medicus* or written correctly in full (an abbreviation devised by an individual author is likely to lead to confusion)
4 Volume
5 Page
6 Month—and day of the month if the periodical is published more often than once a month
7 Year

The year and the volume number may serve as a check on each other The page number permits quick reference when the volume is at hand The date is important, especially if the reference is to a recent periodical, which is likely not to be bound It is useful also if one desires to purchase a number of the periodical, for a publisher prefers to have the exact date of issue rather than the volume and the page Some periodicals—for instance, the *British Medical Journal* and the *Lancet*—do not use volume numbers except 1 and 2 for each year

In references to bulletins published by the various departments of the United States government the following information should be included, in this order (examples 39 and 40 in the list—see page 131)

1 Name of the author
2 Title of the bulletin
3 Number of the bulletin
4 Name of the department
5 Name of the bureau
6 Date

References to these and to other bulletins, monographs and reports should be treated as are references to books, without undue use of abbreviations The exact title should always be given, and the serial number the name of the series of bulletins or monographs (written correctly in full), the publisher and the date should be included (examples 41 to 43 in the list—see page 131)

A few general principles in regard to form may be mentioned[1]

1 Titles of articles and of books are not abbreviated

2 If possible titles should be given in the language in which they originally appeared If for some reason an author wishes to translate the titles into English, however, the translations should be accurate and all the foreign titles should be translated

3 Neither italics nor quotation marks are used to distinguish titles of books, articles or periodicals in footnotes, legends or bibliographies

4 The names of all the authors should be given unless there are more than four or unless the names cannot be obtained (example 22 in the list—see page 130)

5 The number of a periodical usually is not included when the volume number is available

6 Words of reference should precede their numerals Thus "ed 2," "no 8," "series 13"—not "2d ed ,' "8th no ," "13th series"

7 Foreign words of reference such as *tome* (volume), *fascicolo* (part), *Seite* (page), *Teil* (part), *Auflage* (edition), *Abteilung* (section or part), *Band* (volume), *Heft* (number), *Beiheft* (supplement) and *Lieferung* (part or number), should be translated

8 References to abstracts of articles should be included only (1) when the author wishes to show that he has consulted an abstract rather than the original article or (2) when the original article appeared in a journal that is not readily accessible to the majority of physicians In these instances complete data for the original article should be included as well as the reference for the abstract

9 It usually is sufficient to give the number of the first page of the material cited If, however, an author wishes to give both the first and the last page (as in example 2 of the list—see below), he should use this form for all the references in his article Occasionally an author wants to give not the page on which the article begins but the specific page on which the material cited appears If this policy is followed, a note to that effect should be included, for the reader normally expects the page cited to be the first one of the article

In the following list are given examples of the forms used for references of various types in footnotes and bibliographies in the publications of the American Medical Association Press

SAMPLE FOOTNOTES

[1] Francis, T, Jr Transmission of influenza by filtrable virus, Science 80 457 (Nov 16) 1934

[2] Horn, L, and Stengel, E Zur Klinik und Pathologie der *Pickschen Atrophie*

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[1] [illegible] methods indicated are those followed by the periodicals published by the *American* [illegible] Association Other periodicals have individual styles which vary somewhat *from* [illegible] contributor should acquaint himself with the form used by the periodical [illegible] is to be submitted

Ueber die nosolog sche Stellung der P ckschen Krankheit Ztschr f d ges Neurol u Psychiat **128** 673 701, 1930

[3] Domenech Als na F Benaiges B and Arque P Etude du choc provoque par l irrigation peritoneale hyperton que Compt rend Soc de b ol **114** 104 1933

[4] Robinson Will and Parsons Elouse Hemorrhage and shock in traumatized limbs Arch Path **12** 869 (Dec) 1931

[5] Osler W Modern Medicine ed 3 Ph ladelphia Lea & Feb ger 1927, vol 5 p 66

[6] Woodward J Medical History of the War of the Rebellion Washington D C Government Printing Office 1879 pt 2 p 869

[7] Rixford E Surgery of the Lymphat c System in Nelson Loose Leaf Living Surgery New York Thomas Nelson & Sons 1927 vol 4 p 101

[8] Minot G R Treatment of Anemia in Christian H A and Mackenzie J Oxford Medicine New York Oxford University Press 1928 vol 2 pt 2 p 649

[9] Juliusberg F in Jadassohn J Handbuch der Haut und Geschlechtskrankheiten Berlin Jul us Springer 1931 vol 7 pt 2 p 131

[10] Inanition in Piersol G M Bortz E L and others Cycloped a of Med cine Philadelphia F A Davis Company 1933 vol 7 p 236

[11] Soctarius cited by Story W H The Ev l Eye London Chapman & Hall Ltd 1887 p 161

[12] Goinard cited by Benhamou and Goinard [7]

[13] Carter cited in Nelson Loose Leaf Living Medicine New York Thomas Nelson & Sons 1926

[14] Sherwood M W Suppurative pericard tis with report of a case M Rec & Ann 20 5 1926 c ted by White R J Purulent pericarditis A report of seven cases South M J **25** 365 1932

[15] Giorgi E Epidemic scurvy Pediatria **29** 66 (Jan 15) 1921 abstracted J A M A **76** 689 (March 5) 1921

[16] Sutherland C G in d scuss on on We r J F and Snell A M Symptoms that pers st after cholecystectomy J A M A **105** 1093 (Oct 5) 1935

[17] Alexander E G Personal commun cation to the author

[18] Barber R F Unpublished data

[19] Us ng the Aub-Du Bo s standard as a basis for the r calculat ons J J Short and H J Johnson (The increased metabol sm of obes ty Use and abuse of metabol c st mulants J A M A **106** 1776 [May 23] 1936) concluded that the total metabolism increases d rectly with the excess of we ght

[20] Evans H M Meyer Karl S mpson M E and Re chert F L D sturbance of carbohydrate metabolism in normal dogs injected w th the hypophyseal gro th hormone Proc Soc Exper B ol & Med **29** 857 (April) 1932 Houssay B A and B asott A Carbohydrate metabolism and d abetes Endocrinology **15** 511 (Nov Dec) 1931

[21] McKenz e Dan D ff e osteomyel tis J Laryng & Otol **28** 6 79 and 129 1897

[22] Scholl, A J, and others A review of urologic surgery, Arch Surg 31 315 (Aug), 477 (Sept) 1935

[23] Lippard, V W, and Johnson, P Beta hemolytic streptococcic infection in infancy and in childhood I Antifibrinolysin and antistreptolysin response, Am J Dis Child 49 1411 (June) 1935, II Effect of transfused blood and of streptococcic antiserum on the concentrations of antifibrinolysin and antistreptolysin in the blood of the recipients, ibid 49.1430 (June) 1935

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12

Preparation of the Manuscript

The general appearance of a manuscript has a psychologic effect on an editor A manuscript carelessly arranged, without pagination composed of sheets of various sizes, with additions written on slips pinned or clipped to the pages or with corrections made without regard to neatness or to clarity may prejudice the reader who is to pass on its merits Slovenly preparation has caused the return of numerous manuscripts which otherwise might have been accepted

Authors may well devote some time to learning the rudiments of printing Such knowledge helps in the preparation of the manuscript and saves many needless corrections Authors, however, should not attempt to specify type to a competent printer, any more than the physician expects a patient to specify the diagnostic tests to be used

Size of the Paper The standard size of paper adapted to the ordinary typewriter, typesetting machine or filing case is 8 or 8½ by 11 inches (19 by 28 cm) At least 90 per cent of the manuscripts received in the office of the American Medical Association are typed on paper of this size, the paper used for the other 10 per cent varying from small note size to foolscap or larger

Original or Carbon Copy The original copy of a paper should be submitted if possible If the original copy is not available, a first carbon copy on paper of good quality should be acceptable There are practical reasons why editors prefer good, clean copy Each manuscript is read by at least one editor and then, in turn, by the copy editor, the typesetter and the proofreader or the copyholder With the exception of the editor, each of these must observe spelling punctuation, capitalization and grammatical construction The wise author will retain a carbon copy and compare it with the proof to discover whether any liberties have been taken with his manuscript In this manner, he may find some faults in his writing and, indirectly, secure criticism which may prove of aid in the future

Typing the Manuscript. A manuscript typed in single (close) space is objectionable No matter how well the paper is written or how carefully it is prepared, the keen eye of the copy editor may find typo-

graphic errors, misspelled words, grammatical slips or what not that require interlineation These and other corrections are made with difficulty on closely typed manuscripts (see figure 1) It is as easy to type a manuscript in double as in single space, it merely requires a little more paper Liberal margins should be left at the sides to permit editing and corrections The author should utilize these margins to indicate the proper placement of illustrations, tables, charts, etc One inch (2 5 cm) margins usually suffice No marks of any kind should be made on the reverse side of the manuscript page

Neatness Illegibility, smudging or other marked defects in the preparation of a manuscript may give the impression that the research or observation described in the article was equally slipshod and inaccurate and may turn the scale against its acceptance

A manuscript should be folded, not rolled When it consists of too many sheets to permit of easy folding, it should be sent flat

Author's Name. The name and address of the author should appear on each page of the manuscript and on each illustration, chart and table Typed on page one should appear the title of the article, the author's name and degrees, his appointments and his address This information should follow as closely as possible the style of articles in the publication to which the manuscript is to be sent The various items should be separated by sufficient space to permit indication of type sizes and corrections A 3 inch (7 5 cm) margin at the upper edge of the first page should be allowed, as printing instructions are written there by manuscript editors An example follows

A REVIEW OF FOUR HUNDRED AND FORTY CASES OF PELLAGRA

V P SYDENSTRICKER, M D

AND

E S ARMSTRONG, M D

AUGUSTA GA

From the University of Georgia School of Medicine and the University Hospital

The author's office or residence address (street and number) may be placed at the end of his article if he wishes to include it

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Preparation of

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are significant They
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that an internal secretion of the pan-
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however,
accomplished, under such artificial con-
so far removed from anything which can be realized in
ditions that an effective treatment of therapeutics
with pancreatic extracts
human diabetes seems more remote than ever.

Fig 2 Wide spacing and ample margins give opportunity for legible correction

produced complete, or almost

The diabetes in animals by complete

removal of the pancreas so closely re-

sembles human diabetes in ~~all~~ its essential

features that it seems reasonable to hope

that any method which will cure the for-

mer will ~~also~~ be ~~useful~~ ~~in~~ the latter. of use against ;

Any light which may be obtained on the

experimental form will ~~also~~ help to a

better understanding of the human disease.

Fig 3 *The only serious fault to be found with this manuscript is that it has been corrected as if it were proof and therefore is unnecessarily hard to read*

produced or almost

The diabetes in animals by complete

complete,

removal of the pancreas so closely re-

sembles human diabetes in ~~all~~ its essential

features that it seems reasonable to hope

that any method which will cure the for-

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mer will ~~also~~ be ~~useful in~~ the latter;

Any light which may be obtained on the

experimental form will ~~also~~ help to a

better understanding of the human disease.

Fig 4 *This manuscript has been corrected properly*

General Rules Some important suggestions with respect to the preparation of a manuscript follow

1 Use unglazed white paper of good quality

2 Type in double space on only one side of the paper

3 Type tables on separate sheets as these usually are set on a different typesetting machine than the text Indicate in the margin of the text where each table should be inserted

4 Type footnotes (also in double space) on separate sheets at the end of the article or chapter Be sure they agree in number with their respective references in the text

5 Type legends for illustrations on a separate sheet at the end of the manuscript Number the legends in sequence to agree with the illustrations

6 Type quoted material single space, it will be set in a type size smaller than that used for text, and the opening and closing quotation marks will be omitted Obtain written permission from the publisher

7 Number sheets in consecutive order in the upper right hand corner

8 Fasten sheets together with pins, clips or other easily removable fasteners Do not submit manuscripts that have been permanently bound, as this makes for difficult handling by editors and compositors

9 Do not paste, pin or clip illustrations to manuscript Do not write heavily on the backs of photographs so that the impression will show on the reverse side If necessary for identification write lightly in the margin

10 Number the illustrations in sequence and indicate in the margin of the text where they are to be inserted

11 Indicate paragraphs clearly, either by the usual indention or by the use of the paragraph mark, ¶

12 Make all corrections on manuscript in ink, preferably black or blue black Do not use pencil or colored crayon

13 Put any necessary corrections between the typewritten lines of the manuscript, using a caret to indicate place of insertion Retype any sheet bearing numerous corrections

14 Draw a horizontal line through words or phrases to be deleted If several paragraphs or pages are to be eliminated, draw an oblique line through such matter

15 If several pages are omitted from the manuscript, the pages should be either renumbered or so numbered at the top as to indicate the omission For example, if three pages are omitted (pages 25 to 27), the page following 24 may be marked "25–28" If a page is inserted—say between pages 5 and 6—it may be marked "5a" with the notations "Page 5a follows" made at the bottom of page 5 and "Page 5a precedes" made at the top of page 6

16 Mark off by brackets any material to be transposed from one portion of the manuscript to another, indicating the transposition by the notation "Transpose to page —" On the latter page, clearly indicate where the transposed material is to be inserted, with the notation "Insert from page —"

17 Write the word "End" at the bottom of the last page of the manuscript Also state at this point whether or not there will be an index

18 Submit the original typing to the publisher, retaining a carbon copy for comparative reading

13
Illustrations

Good pictures are eloquent, frequently one small illustration will convey more to the reader than could be explained in several pages of text matter Such an illustration nearly always has evolved from a thorough understanding of the material and a well chosen attitude from which to present it Many authors, however, submit huge numbers of illustrations with their manuscripts, regardless of whether or not the pictures are necessary to bring out adequately the points made in the text and even regardless of whether they bring out any point at all Few journals can afford to reproduce large numbers of illustrations Therefore, unless the author is willing to contribute toward the costs of reproduction of his illustrations, he should curtail the use of pictures as much as possible, selecting for reproduction only those which he feels are required to illustrate points to be emphasized Care in planning illustrations will reduce their number materially, and the omission of extensive backgrounds will reduce the size of the finished engraving, which governs its cost

Readers of scientific journals may be assumed to be familiar with the normal appearances, gross and microscopic, of the various organs, hence illustrations of normal conditions should be used only when required for the sake of contrast The first rule regarding illustrations, therefore, is that they should *illustrate* Only after this function has been fulfilled may the artistic elements be considered

PREPARATION OF ILLUSTRATIONS

In preparing illustrations for publication, the author should consider the size of the type column and the size of the page of the periodical in which the article may appear The illustrations should be of a size that, with reasonable reduction, can be accommodated to the type column

Sometimes pictures can be grouped to advantage, thus permitting saving of space and expense For instance, three blocks 2¼ inches (6 3 cm) wide by 3 inches (7 5 cm) high will cost more than one

block in which the same three illustrations are combined Two of the pictures could be placed side by side, making a cut less than 5 inches (12 5 cm) wide, and the third block centered above or below Figures 5–10 show how and how not to group illustrations

A better appearance is secured if single pictures or groups of pictures are higher than they are wide, as is the page of most periodicals

A column in *The Journal of the American Medical Association* is 3¼ inches wide and a two column format is used; drawings should be planned to require no more than 30 per cent reduction to bring them down to proper width (see figure 11)

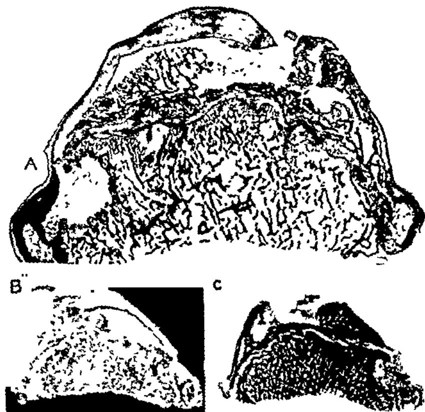


Fig 5 A photograph (*B*) and a roentgenogram (*C*) are combined with a photomicrograph (*A*) of a section of the head of the femur The grouping facilitates comparison of the three pictures and conserves space, hence lowers cost "*A*," "*B*" and "*C*" made as separate cuts would cost about 20 per cent more than the arrangement shown The photographer can make his prints the proper size for such a combined mounting

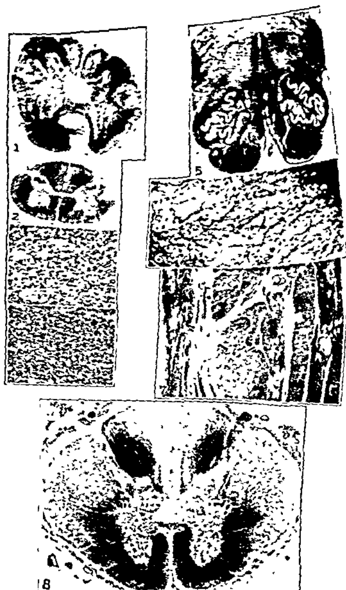
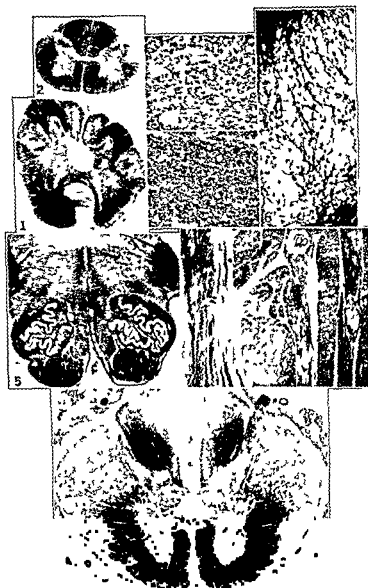


Fig. 6 When sections of various sizes and shapes are combined at random, there is l
of symmetry


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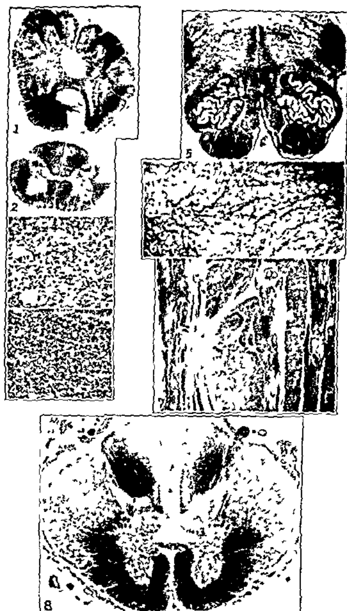


Fig. 6 When sections of various sizes and shapes are combined at random, there is lack of symmetry


2
8

Illustrations should be suitably numbered and their position in the manuscript should be indicated even though it is not always possible for the printer to follow these directions implicitly The number of the picture and the name of the author should appear on each, and the top should be marked Labels for identification of illustrations may be procured from the headquarters office of the American Medical Association On these labels space is provided for the names of both the author and the journal in which the article is intended to appear, the number of the figure and any instructions concerning reduction or reproduction that it is deemed desirable to furnish It is inadvisable to write on the back of a photograph, since this may mar its surface If, however, labels are not available and it is necessary to write on the back for purposes of identification, a soft pencil should be used and little pressure applied



Fig 8 The use of the small inset on an unimportant area of the picture makes the overall cost of one illustration cover both

Since medical illustration in recent years has attained such a high standard of perfection, any article illustrated by amateurish pictures suffers by comparison with the other articles in almost any journal This is also true of photography Competent medical illustrators are available in nearly every large city today, if not, artists can be recommended by the editors or publishers Early consultation between author and artist will result in useful illustrations

When the illustrations constitute a major part of a paper, their suitability to a simple type of reproduction may be a factor in the acceptance or rejection of the manuscript Here the experienced artist,

familiar with photoengraving methods, can render substantial aid to both author and publisher

The artist should be given all available information concerning the journal in which the article is planned to appear Page size, column width, etc , are important in planning the drawing size and the amount of reduction necessary

Mounting photographs and drawings with rubber cement on white cardboard, leaving some margin all around, provides a place for editorial or photoengraving notes besides protecting the material from damage If these cardboard mounts are uniform in size, the packaging of a number of illustrations is simplified

Clips or pins should not be used to fasten photographs, particularly glossy prints They leave impressions or holes in the photographs which cannot be eradicated in reproduction

Illustrations should be sent flat—never rolled or folded—and protected with cardboard A crease made in folding cannot be eradicated in the process of reproduction and will mar the surface of the picture

LABELING ILLUSTRATIONS

After the illustration has been prepared, the author should make certain that the significant points are clearly apparent and that they will come to the attention of the reader Special attention can be called to these points either by a special reference in the legend to appear under the picture or by lettering placed on the photograph itself

Letters, words and numbers placed on the surface of the picture should be sufficiently large to be legible when reduced to the size indicated and should be neatly made with a view to securing a pleasing appearance after reproduction, hence a plain, open-faced style is preferred

Judicious use of labels incorporated in the drawing and fully *spelled out should not detract from the appearance of the drawing* The use of coded labels (*a*, *b* *c*, etc , or *1*, *2*, *3*, etc) with their interpretation in the legend under the illustration is apt to discourage the careful study of the picture by causing the eyes to be constantly shifted (compare figures 12[*A*] and 12[*B*])

Labels should be placed so as to require as little extra space as possible, and thus not increase the cost of reproduction It is generally desirable, therefore, *to place black letters on* unessential white areas *within the* picture or white letters on black areas, making the dotted *lines and the lettering come entirely within the body of the photograph*

When abbreviations in labels are *necessary, only* standard ab

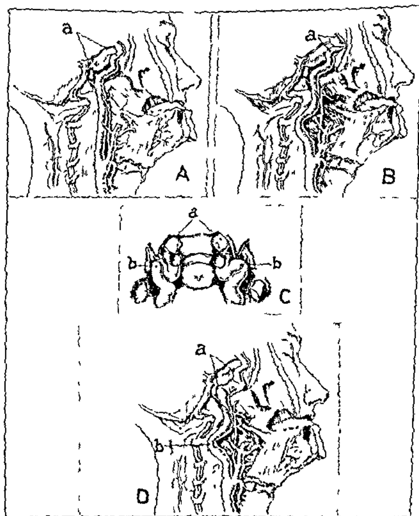


FIG 9 These drawings and their lettering are *satisfactory* enough but the ba   ound on "*D*" should have been trimmed to match "*A*" and "*B*" before mounting   ge- ment wastes too much space, as may be seen by comparison with figure 10

breviations should be used (m , a , v , n , for muscle, artery, vein, nerve respectively, and inf, sup, int, ext, in anatomic terms are acceptable) Consistency in the use of some standard terminology will add to the value of a series of illustrations, especially since these same illustrations may later be borrowed by other authors

The lettering may be done by a competent draftsman, or printed characters may be obtained to be pasted on the illustrations These characters, however, while usually satisfactory from the point of view of appearance, do not always adhere to the illustration—particularly to a glossy surface Sometimes they are lost after the pictures pass through the editorial office, and the loss is not detected until the author receives the proof Any insertions or changes after the blocks have been made require the making of a new block and mean added expense

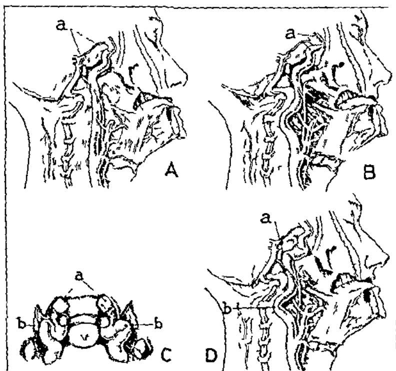


Fig 10 Both space and expense are saved by the proper mounting of the pictures shown in figure 9

Perhaps the best method of marking points to be indicated by guide lines and side labels is to cover the illustration or photograph with a sheet of tracing paper, transparent enough to be easily seen

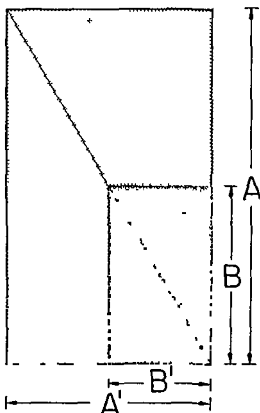


FIG 11 Reduction of illustrations is always based on linear dimensions When light area measuring $A \times A$ is reduced one half to size $B \times B$ the resulting area is one fourth of the original This figure shows the use of shading film Area $A \times A$ is single thickness while area $B \times B$ is a double thickness of the same pattern The overlapping of the films can produce a wide variety of patterns

through, on which the author may mark his choice of those structures to which the reader's attention is to be called This permits the editor to use either the side or the top or bottom margin for the lettering necessary *to identify the structures If guide lines have already* been ruled on the illustration by the author, it frequently happens that

not enough space has been left for the le... the end of each line (see figure 13)

LEGENDS

A full descriptive legend to be placed b... be provided The legends should be nu... respond with the pictures and should b... sheet at the end of the manuscript, not on t... be given the same care in composition a... material in the body of the article The l... all the important points brought out by t... each of the letters numbers, arrows or o... the picture

PERMISSIONS

Many people object to having their... scientific periodicals The author of an... photograph either should secure from th... for publication and inform the editor of... article is submitted that written permi... should mask the face in the portrait by... India ink or by pasting over them pieces... If pictures depicting conditions about th... the patient s written consent to the use o... be secured since the picture would be u... out

When photographs are submitted as... must be informed that retouching is no... ever careful retouching by a competen... contents of other photographs whose det... with the case yet too vague to be useful...

Frequently an author wishes to use... have been published elsewhere In suc... secure written permission from the ... publisher since the better periodicals ... statement that written permission has... pany the manuscript when it is submit...

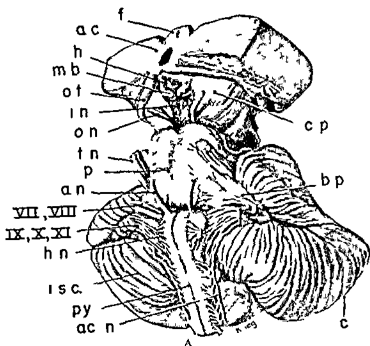


FIG 12(*A*) (*a c*) Anterior commissure (*a n*) abducent nerve (*ac n*) accessory nerve (*b p*) brachium pontis (*c*) cerebellum (*c p*) cerebral peduncle (*f*) fornix (*h*) hypothalamus (*h n*) hypoglossal nerve (*i n*) interpeduncular nucleus (*i s c*) inferior surface of cerebellum (*m b*) mamillary bodies (*o n*) oculomotor nerve (*o t*) optic tract (*p*) pons (*py*) pyramid (*t n*) trigeminal nerve (*VII VIII IX X XI*) 7th 8th 9th 10th 11th cranial nerves

Use of abbreviated labels forces reader to shift from figure to legend for interpretation Compare this with figure 12(*B*) (Courtesy Krieg Functional Neuroanatomy [with modified side labels] Philadelphia The Blakiston Company)

the publisher will be put to the trouble of asking the author if such permission has been granted, and this usually causes delay in publication Complete information (see chapter entitled "Bibliographic Material" for definition of a complete reference) concerning the source of the illustrations should be included, either in the legend or in a footnote The author should be sure that borrowed illustrations do not contain contradictions to statements made in his paper

CHOICE OF MEDIUM FOR REPRODUCTION

Zinc Line Engravings Line drawings made with pen and ink on bristol board or black lithograph pencil on rough or stipple paper can be reproduced as zinc line engravings, which cost from a half to a third as much as halftones (see figure 14) Drawings of this sort

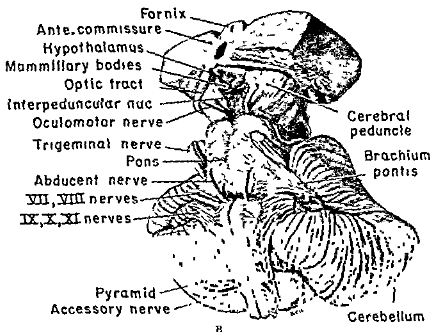


FIG 12(*B*) Here the reader finds each structure with its name close at hand The vertical column space occupied by this figure is the same as figure 12(*A*), opposite and the space taken up by the legend below figure 12(*A*) has been saved here (Courtesy, Krieg Functional Neuroanatomy, Philadelphia The Blakiston Company)

must be made with pure black ink, or, in the case of lithograph pencil, the strokes must be placed firmly so as to produce pure black patterns Shading on such drawings must be made by lines cross hatching or stippling, or by the use of Ben Day tints or shading film (see figure 11) (See page 146)

Halftones. Photographs or drawings that have been prepared properly lend themselves to satisfactory reproduction by the halftone process This method must be used if lines of tones intermediate between black and white are used in drawing (See pages 144–145)

ZINC LINE ENGRAVINGS

Zinc line engravings are used in the reproduction of line drawings (see figure 14) and of printed matter appearing in black and white The original drawing is preferred to a photograph of it, since some of the clearness and detail are lost each time an illustration is submitted to a photographic process

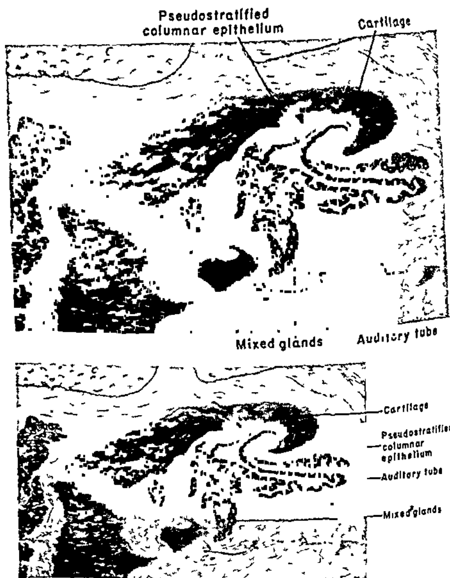


FIG 13 The upper and lower parts of this figure demonstrate proper and improper use of guide lines On the lower figure the guide lines had already been drawn in ink, making it necessary to reduce the drawing in order to provide space for labels In the upper figure full column width is available for the illustration, the labels being fitted in above and below the photomicrograph

Drawings made with ordinary lead pencil are rarely reproduced satisfactorily by this method, as a rule they must be returned for redrawing or be reproduced by the halftone process

The process of reducing will soften the drawing and give the reproduction a more finished appearance Drawings should be neatly done, straight lines should be made with a ruler and circles with a compass The average physician, not having had the training of a draftsman, usually is not competent to make creditable drawings Therefore, most medical periodicals cooperate with the author by having a competent artist do the work for him from a rough sketch that may be submitted (see figures 15 and 16)

HALFTONE ILLUSTRATIONS

The halftone process is used for the reproduction of charts and drawings with gray shading and of photographs—patients, tissues and appearances under the roentgen rays

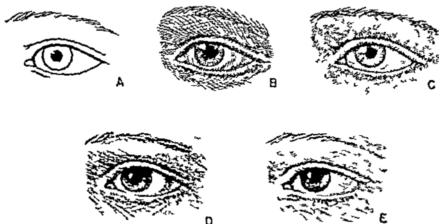


Fig 14 Various art technics suitable for reproduction by the zinc line engraving process

(*A*) Simple outlines of structures

(*B*) Lines and cross hatching for differentiation of parts

(*C*) Stippling to explain form by light and shade

(*D*) Lithograph pencil on rough paper with corneal reflex painted in with Chinese white

(*E*) Lithograph pencil on no 1 Ross Stipple Board In this drawing the iris of the eye was painted sol d black and by lightly scratching the tops of the stipples a much darker tone was produced than could be secured by pencil alone The corneal reflex has been scratched out

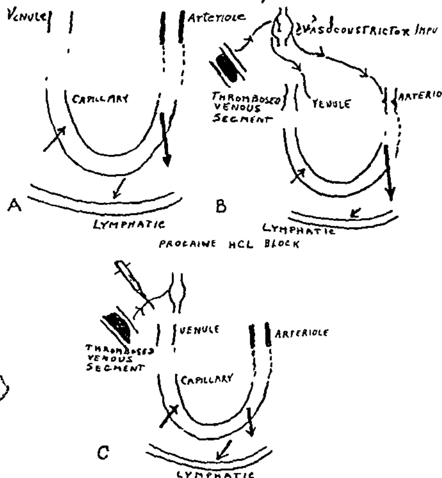
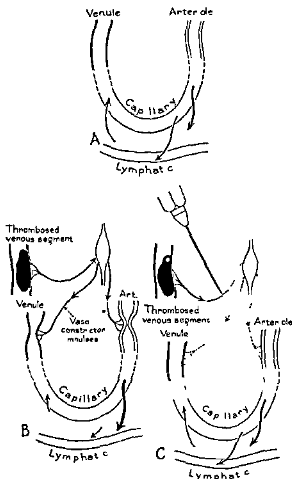


FIG 15 This drawing submitted for publication obviously is the author's attempt at illustration Functionally it is almost adequate but lacks clarity of expression In another sense it is a communication of an idea sound enough in itself but needing revision of its grammar to convey its meaning

The ideal photograph is a perfect print on paper with a glossy finish Tone drawings with few or no hard black lines usually result in good illustrations by the halftone process

Halftone engravings are made in two major styles *square finish cuts,* in which the background is left with its light gray tint made up of tiny dots, and *outlined cuts,* in which the engraver cuts this background away This latter process is much more expensive since it is hand work, and if the background contains any lettering the engraver

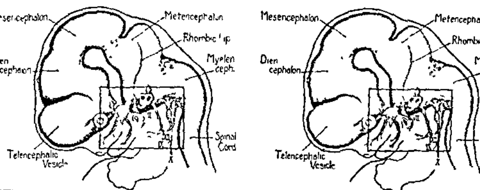


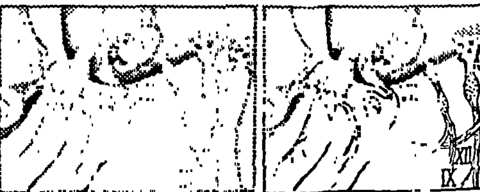
tory diagram

must work around it very carefully To escape this the engravers resort to *combination plates* which are actually a combination of two films—one of the halftone, outlined, the other a strong contrast film of the lettering, the two being carefully superimposed and the plate etched This method, while producing attractive plates, has, besides its added expense of hand work, a very definite hazard, for the illus-

tration's outlines, which may have been soft and hazy in the original, now emerge very sharply contrasted to the white paper and sometimes upset the balance of light and shade which the artist worked hard to achieve. Then, too, the engraver, not being familiar with the subject matter, may unwittingly distort the outlines (See figures 17[*A*] and 17[*B*].)

When unusual contrast is deemed desirable by the author, a method of reproduction called *dropped highlights* can be employed.



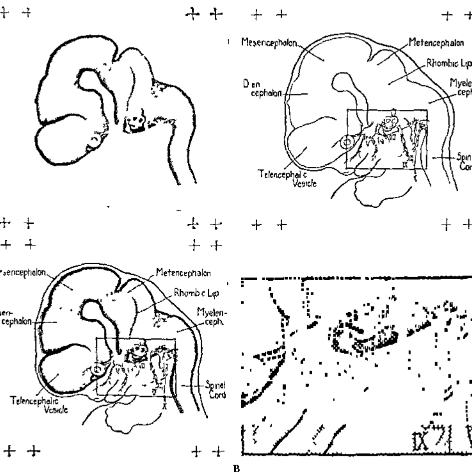


A

FIG 17(*A*) The halftone process of reproduction (*Upper left*) "Square finish" plate with "screen" over entire picture, lines and lettering (*Upper right*) "Combination" plate, on

plate (*lower right*).

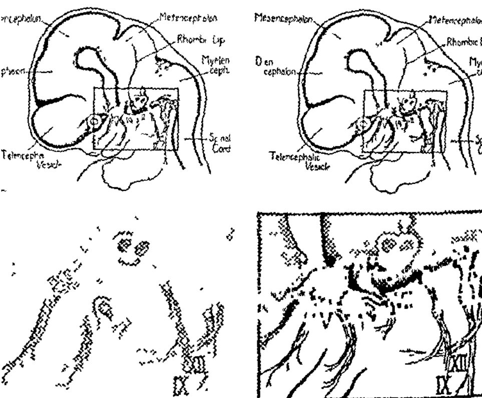
Cuts made by this method, however, cost three times as much as regular halftones and the author may be asked to bear part of the costs—in other words, all over and above the cost of regular halftones



[illegible] area and exactly traced on the overlay The drawing and overlay are photographed separately by the engraver who then strips the "line" film over the halftone film and etches the plate The figure on the lower left shows the result of this method, while the lower right illustration is an enlargement of the rectangle in which may be seen the solid blacks of the lines and lettering

tration's outlines, which may have been soft and hazy in the original, now emerge very sharply contrasted to the white paper and sometimes upset the balance of light and shade which the artist worked hard to achieve Then, too, the engraver, not being familiar with the subject matter, may unwittingly distort the outlines (See figures 17[*A*] and 17[*B*])

When unusual contrast is deemed desirable by the author, a method of reproduction called *dropped highlights* can be employed



A

Fig 17(A) The halftone process of reproduction (Upper left) "Square finish" plate with "screen" over entire picture lines and lettering (*Upper right*) "Combination" plate, on which the halftone is confined to the picture, while the lines and lettering outside are solid blacks The engraver has mechanically removed all "screen" from the background before superimposing the "black" film over the "halftone" film prior to etching (*Lower left*) An enlargement of the area shown in the rectangle of the "square finish" plate to show the over all screen Compare this with the same rectangle enlarged from the "combination" plate (*lower right*)





FIG 18 The blurred and dull background seen in *A* was painted out so that in *B* there is nothing to detract from the lesions

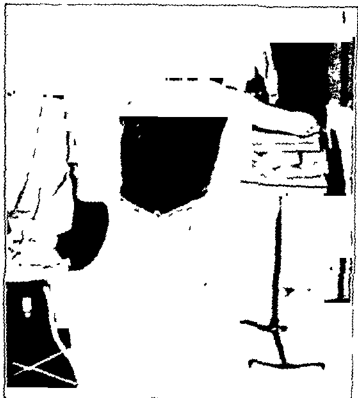


Fig 19 The inclusion of chair and table in the foreground distracts attention from the patient and necessitates so much reduction that the lesions on the man's back are barely visible

and, in addition, important details are lost in the process Hence a better illustration results if made from the actual film

In preparing the roentgenogram, the experienced roentgenologist will mark it to identify the essential points The markings, however, should not be so obtrusive as to mar the effect of the complete reproduction The points of importance may be suitably identified by the insertion of lines on the roentgen ray film (see figure 26).

To the physician who secures it, and to the reader, the roentgen ray photograph is actual evidence of the facts brought out in the case report. If an author is trustworthy and reliable, he need not provide actual evidence for his reader, but he should select his roentgenograms on the basis of new points to be brought out in the specific case It is unnecessary to include six roentgenograms to illustrate a niche in the

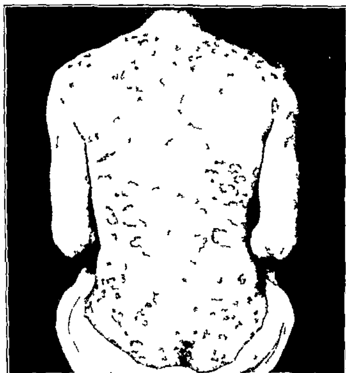


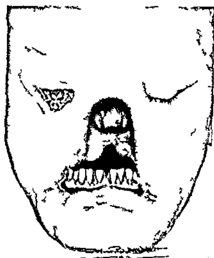
Fig 20 In this photograph of the patient seen in figure 19 the lesions are emphasized

stomach as it occurred in six cases unless something distinctly new is to be presented concerning each of these niches In a paper describing a method of making the ureters the kidneys or the gallbladder visible by the injection of an opaque substance it is unnecessary to have more than one or two pictures showing the results of the process Obviously the best in the series will be selected The author may then state in his text that 18 or 20 similar plates were prepared

A study of the medical periodicals received at the head quarters office of the American Medical Association and also of manuscripts submitted indicates clearly that an undue amount of both money and labor is being expended on the reproduction of super fluous roentgenograms In certain instances the details to be brought out by a roentgenogram are visible on the original plate but so much is lost in reproduction that the illustration is practically worthless

such instances it is better to submit a diagrammatic outline of the roentgenogram to be published with the roentgenogram or by itself and to state in the legend that it is made directly from the original roentgenogram. Obviously only the parts of a roentgenogram which







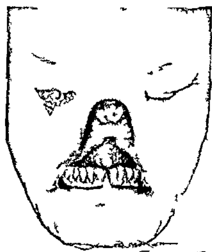
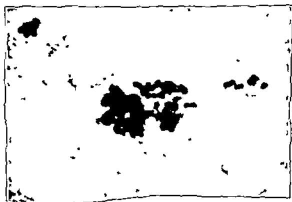


Fig. 21. On the left are shown flashbulb photographs of a patient while on the right are drawings made from these photographs and from the patient in which the artist has emphasized the details. *The author decided to show drawings and photographs together*, the latter serving to authenticate the former. (Courtesy Dorrance: The Operative Story of Cleft Palate. Philadelphia, W. B. Saunders Co.)

IG 22. This photomicrograph was 7½ inches (19 cm) high Reduction to a height of 4½ inches (11 5 cm) has resulted in loss of both detail and clarity



IG 23 The significant portion of the photomicrograph shown in figure 22 has been reproduced with al magnification

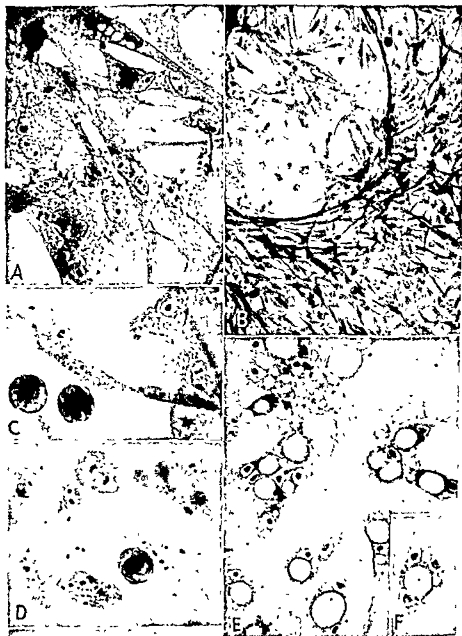


FIG 24. An example of effective grouping of photomicrographs. Note the inset in the lower right corner.

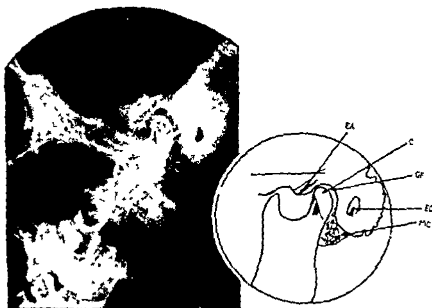


Fig 25 The use of a diagrammatic drawing to clarify a roentgenogram for the reader The use of abbreviations is not desirable but sometimes is necessary (Courtesy Miller Oral Diagnosis and Treatment Philadelphia The Blakiston Company)

are necessary for the identification of the portion of the body presented and to show the essential details should be reproduced The author will do well to indicate on the print the portions to be included in the reproduction

BEN DAY PROCESS

The Ben Day process—named after the inventor, Benjamin Day—is a process for producing a variety of shaded tints by the use of gelatin films, and is used particularly in connection with zinc line engravings Unfortunately it must be applied by the photoengraver who must be furnished with complete directions and "guide" sketches A much simpler method consists of a transparent film on which has been printed a pattern of black dots or lines which is to be attached by rubbing to the area to be shaded and the surplus cut away with a sharp needle For shading over black areas, white dots or lines, etc , are supplied This can be done by any artist directly under the author's supervision without the costly investment in the machinery needed for the Ben Day process



Fic 26 The ntersection of two lines (*top*) which end some little distance from the point of interest is preferred to a single arrow (*bottom*) The point of intersection leaves no doubt as to the author s meaning while the arrow if placed closely enough may make too great a contrast and thus obscure delicate shadows in the roentgenogram (Courtesy, Miller Oral Diagnos s and Treatment Ph ladelpl a The Blakiston Company)

COLORED ILLUSTRATIONS

The reproduction of illustrations in color is expensive, in a periodical of the circulation and page size of *The Journal of the American Medical Association* the cost is prohibitive It is suggested, therefore, that if possible some means other than the color process be devised to depict what it is desired to show In drawings, for instance, it is possible to use varieties of cross hatching and stippling to differentiate the various portions, the significance of these various forms may be explained in the legend to appear under the illustration Here again the Ben Day process or shading film may be used (see figure 11), making possible a less expensive type of reproduction

The American Medical Association Press has adopted the following rules relative to the reproduction of illustrations in color If the editors believe that an illustration should be reproduced in color, the Association Press will pay part of the expense, the rest to be borne by the author or by the institution with which he is connected If it appears that an illustration will be as satisfactory if reproduced in black and white, all the expense must be borne by the author if he desires to have it reproduced in color

The printing of colored inserts for the author's reprints is also expensive and this cost of course must be met entirely by the author

RETURN OF ILLUSTRATIONS

If the author wishes his illustrations returned, the word "Return, together with his address, should be written on the label on each picture, and in submitting his manuscript the author should specifically request the return of the illustrations after publication It is necessary that illustrations be held by the publisher until the article is in pages, so that they may be properly identified by the proofreaders

GENERAL RULES PERTAINING TO ILLUSTRATIONS

1 Illustrations must illustrate

2 Illustrations should be correctly numbered and identified On the mounting of each the author should indicate the top and give his name and the number of the illustration This is done preferably by means of a paper label pasted on On request the American Medical

Association will provide labels in quantities of 12 or less for manuscripts to be submitted for its publications

3 Illustrations should be sent flat—never rolled or folded

4 Indication should be made in the margin of the manuscript at the place where the author would like to have each illustration inserted

5 Expense can be saved by grouping illustrations when this is feasible Such groups should be published as text figures, not as plates, and the individual sections should be lettered instead of numbered

6 Lettering on illustrations should appear, preferably, within the borders of the picture

7 Because the cost of reproducing illustrations is such an important item, the American Medical Association Press has adopted the policy of requesting authors to assume part or all of the expense of publishing illustrations in color as well as the cost of reproducing what it considers more than a reasonable number of black and white illustrations The cost of reproducing illustrations in society transactions must be borne by the author or by the society

CONCLUSIONS

Suitable illustrations attract the interest of a reader, and, if well selected and properly reproduced, are likely to cause more readers to familiarize themselves with the contents of an article than would otherwise notice it Obviously, the eye is caught by the picture even before the reader's attention is attracted by the title or by the text Moreover, illustrations can constitute actual scientific evidence Their preparation should be given meticulous attention In this connection, the following paragraph from the preface of S Ramón y Cajal's "Histologie du système nerveux de l'homme et des vertébrés"[1] is interesting

> Illustrations some in black and white and others in color, clarify the text of this volume, their number is considerable There are never enough illustrations, especially in works on anatomy, in which, it might be said, the illus

[1] Ramón y Cajal S Histologie du système nerveux de l'homme et des vertébrés Paris A Maloine 1909

trations are more necessary than the text—on one condition, it is true, that they are, like ours, copied with the most scrupulous attention to detail from irreproachable preparations Such illustrations are nature itself, the facts themselves, to be submitted to examination and free interpretation by a host of observers They are likewise documents of infinite value to which future generations can have recourse in the continuous struggle of opinions and theories The text itself represents the author—that is, one of many ways of looking at nature and facts—with his unavoidable tendency to twist and simplify according to the ineradicable conditions of his mental processes

of both the author and the reader to have the table prepared so that it may stand upright, rarely does an editor arrange for the insertion of a broadside table—one on its side When statistical data cannot be presented in any other manner, it is possible to make exceedingly large tables, which are folded and inserted in the periodical after the forms are assembled This, however, is a costly hand process, and it is customary for periodicals to ask authors to bear the extra expense entailed In special instances arrangements are made to spread a table across two facing pages, thus avoiding duplication of material This likewise is not generally desirable, as it involves difficulty in arranging the article in consecutive order in the pages

As in the case of illustrations or, in fact, of any material that has previously been published, written permission must be secured from the author or publisher if a table is reproduced from some other periodical The table should be reproduced as nearly in the form of the original as typographic facilities permit, and the fact that it is taken from another source may be indicated as follows

TABLE 1 (from Jones[5]) — *Weights of School Children*

CHARTS

Lines in charts should be differentiated by their composition rather than by the use of different colors They may be heavy or light, continuous or broken (composed of long or short dashes, of dots, of dots and dashes, or of dots, circles and dashes) (See figure 27) A scatter graph may also be used

Much of the paper sold for charting purposes has blue, green, brown or light red cross rulings, which ordinarily are not of the same intensity and which in reproduction give a spotted and broken appearance Usually only every fifth or tenth line is required as a coordinate in locating the points that determine the path of the curve, hence chart paper without the intermediate lines—that is, with large squares—or chart paper in which the intermediate lines are light blue and can be dropped in reproduction is preferable The American Medical Association has prepared chart paper ruled in black, with squares of three sizes, which is supplied to authors at cost

Charts should be condensed as much as possible to permit repro duction with the least possible reduction Waste space is avoided by bringing the borders down or up close to the curves at all points and

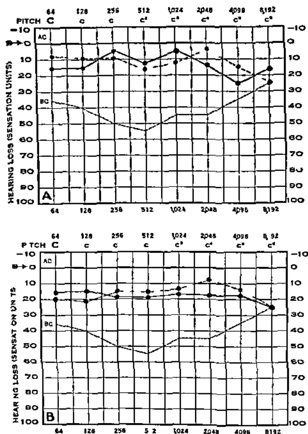


FIG 27 These audiograms (*A* taken before and ' *B* after the administration of procaine hydrochloride) illustrate the use of different kinds of lines The two lines emphas zed with dots show the record for the patient—the sol d line that for the right ear and the broken line that for the left The broken line below shows the aud ometer read ngs for a person with normal hearing

by eliminating from the surface of the chart unimportant or irrelevant data If a temperature curve ranges from 97° to 104° F , it is unneces sary to reproduce the whole of a temperature chart made to show variations from 95° to 107° F The temperature chart ordinarily used

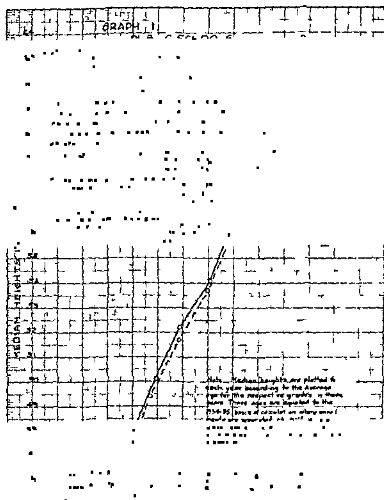


FIG 28 A reproduction of a chart as submitted by an author The blurred background makes it difficult to read the letters and figures and to follow the curves and gives the chart an unpleasing appearance

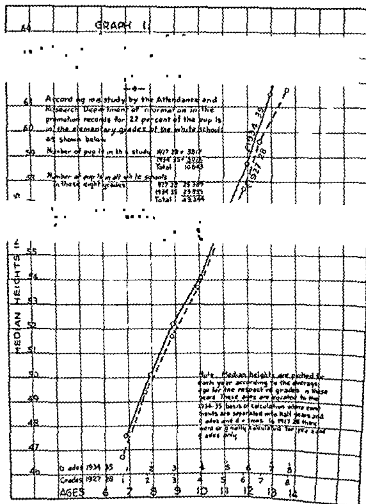


FIG. 29 The chart shown in figure 28 as improved by the use of paper with simple, large squares. It might be improved further by elimination of some of the statistical data, which could be included in the legend, in the text or in a table

for the hospital record does not reproduce as satisfactorily as the chart prepared particularly to show the temperature, with the varying degrees indicated by printed letters on the left hand margin Unless neatly printed, words and sentences placed on the face of the chart spoil its appearance, therefore, it usually is better to place letters, numerals, asterisks or other indicating devices on the face of the chart and to explain them in the legend All letters, numbers and symbols on charts should be sufficiently large to permit of necessary reduction

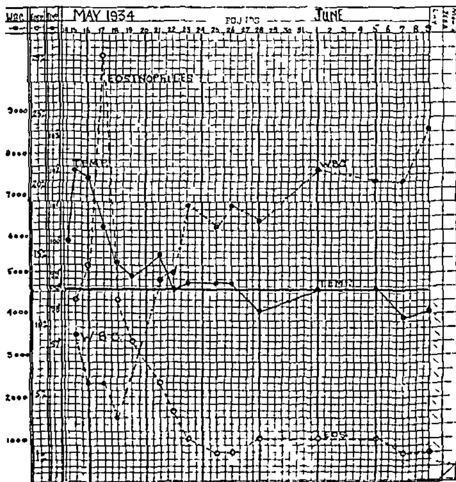


Fig 30 Broken lines in the background give this chart a spotted and unattractive appearance, crooked and illegible letters and crowded and indistinct figures prevent it from conveying the author's information to the reader

to accommodate the chart to the type column Frequently papers are accompanied by charts so large that they require well over 50 per cent reduction, but the numbers and letters thereon will not permit of more than 5 per cent reduction Such charts must be returned to the author to be redrawn which may occasion delay in publication

Figures 28 and 30 show amateurish charts received for publication and figures 29 and 31 show the same charts after the editor had them redrawn for the author

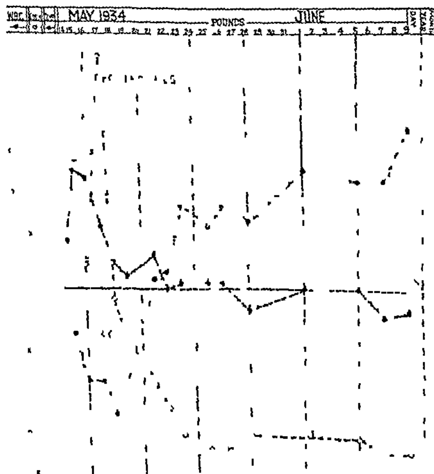


Fig 31 Clean well printed chart paper careful lettering and enlarged figures have improved the chart shown in figure 30

The same rules apply in the presentation of statistical data by the use of various shadings. Shading should be done in black and white rather than in colors. For the purpose of contrast, solid black squares may be placed next to white squares or next to squares filled with dots, with oblique lines or with circles. It is the rule of practically all

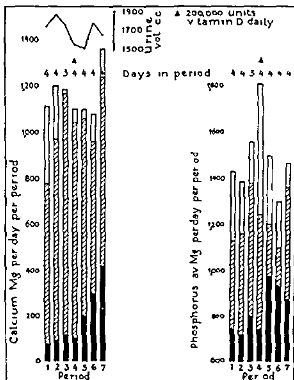


Fig 32 This chart illustrates the use of different kinds of shading

periodicals that the author shall be asked to bear the extra expense of reproducing in color charts in which the data could be presented as well in black and white

REPRINTS

Reprints are considered the property of the author and only a sufficient number is struck off by the press of the American Medical

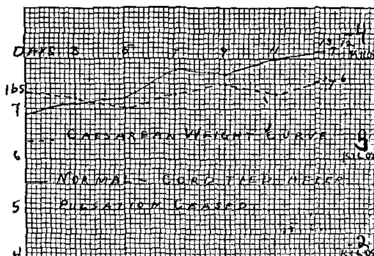


FIG 33 The chart paper on which this chart was made was ruled in green Such paper is pleasing to the eye in the original but gives an uneven and smudgy effect in the black and white reproduction The excessive amounts of background and of wording moreover, distract attention from the curves themselves

Association at the time of publication to fill the orders placed by him Requests for reprints, therefore, should be sent directly to the author, whose address usually appears in one of the footnotes at the bottom of the first page or at the end of the article

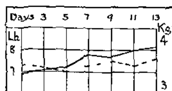


FIG 34 The chart shown in figure 33 redrawn on chart paper ruled in black with larger squares It occupies less space than the original is more pleasing to the eye and is easier to read The explanations of the lines would appear in the legend

15
Revision of the Manuscript

In his well written, interesting and practical book entitled "Notes on the Composition of Scientific Papers," Sir T Clifford Allbutt[1] said that it was his custom to make at least four drafts of a manuscript before it could be considered ready for the printer The first draft was compiled from notes that had been carefully collected on slips and arranged in logical order Redundant words, phrases, sentences and paragraphs were then deleted, resulting in the shortening of the manuscript from 20 to 25 per cent, and sentences out of position or coherence or logical development of thought were moved to better positions Naturally, also, second thoughts (in many instances better than first thoughts) were inserted as they occurred

In the next revision, sentences and paragraphs were recast so as to carry but one meaning ornamental and figurative passages were modified or removed, and particular attention was given to the choice of exact words for the meanings to be conveyed After a few weeks had elapsed, Sir Clifford again read the entire manuscript with refreshed attention, making final additions and revisions

Consider now how the average manuscript is written The physician surrounds himself with textbooks reprints, periodicals and penciled notes and starts to write his paper—probably in longhand After more or less worry and possibly some sleepless nights, he breathes a sigh of relief, thanks heaven that it is finished and has it typewritten He may read the typewritten copy and make one or two corrections before sending it to a medical journal, more likely, he reads the paper before a society and then, without any revision worthy of the name, sends it for publication Not a few manuscripts offered for publication bear evidence that the only reading given them was that of the typist and that she did not correct her own misspelling "To have a manuscript typewritten," said an editorial writer in the *British Medical*

[1] Allbutt T Clifford Notes on the Composition of Scientific Papers ed 3 London Macmillan & Co 1923

Journal, "and then to send it for publication without revision is a crime comparable to operating with unwashed hands"

Many physicians have envied Sir William Osler his easy command of English in his writing In his library is a collection of some of his manuscripts, showing the various stages in their preparation First are notes on paper of various kinds, evidently written on trains and at opportune moments, then a rough outline in longhand, next the first typewritten copy, with interlineations, transpositions and deletions, then the second typewritten copy, which also bears evidence of much modification, and, finally, a third typewritten copy, which evidently was used by the printer Even this last copy has a few minor corrections

Anatole France, Nobel prize winner in literature, said that seven revisions are necessary, and that an eighth is desirable in order to make sure that the corrections on the seventh have been understood "In the first," it has been said, "he enlivened what had been platitudinous The second was for 'weeding out the dandelions,' whos, whiches and whoms In the third, he eliminated the semicolons, shortened his sentences and struck out phrases which merely linked one sentence with another or marked a transition from one thought to another, a task that should not be left to the reader In the fourth draft he gave special attention to the order of sentences and to the repetition of the same word, he looked on the recurrence as a warning to rewrite the sentence, not to search for a synonym The fifth draft saw the disappearance of adjectives for he was of the opinion of Voltaire that though the adjective might agree with the substantive in gender, number and case, often it did not suit it From the sixth draft he chipped away what he called the pastry, all that was adventitious and redundant, and over the seventh draft he passed the plane, for, he said, 'a good writer is like a good cabinet maker—he planes his phrases smooth' "

Trelease and Yule,[2] in their practical book entitled "Preparation of Scientific and Technical Papers," suggest 10 revising processes, pointing out, however, that it is necessary to recopy the pages only after they have become crowded with corrections Their first revision

[2] Trelease S F and Yule E S Preparation of Scientific and Technical Papers ed 3 Baltimore The Williams & Wilkins Co 1937

is for consistency, involving the removal of irrelevant material and the avoidance of contradictions Next, the structure of individual sentences is improved and it is emphasized that few sentences should have more than 30 words The punctuation should be simple Revisions are then made for clearness of sentences and paragraphs to avoid repetition, to justify the use of conjunctions, interjections and relative pronouns to make certain that the article reads smoothly, to correct punctuation to make the use of capitals and italics and the subheadings consistent, and, last, to make certain that statements are accurate

An article appearing in a state medical journal apparently was published without revision, it presented most of the faults mentioned in this book, as well as many of those referred to in elementary books on grammar and rhetoric The entire essay comprised 2,800 words It was divided into 12 paragraphs, and contained only 33 sentences— an average of 84 words to a sentence One paragraph, consisting of a single sentence of 208 words, read

> We know of course that a few of the state societies have recently taken it upon themselves to initiate a campaign intended to counteract in some measure the ravages of quackery and such an effort is a very praiseworthy one and we bespeak for it a considerable degree of success, and it behooves us as members of the societies to assist in every possible manner the furtherance of this effort and also seek to enlist the aid of those of the profession who are not yet members of our societies that a united front may be presented in the fight as this is essential to the success of the campaign and we must realize further that such a united effort does not at all excuse an individual effort but rather makes this more obligatory and should remember also that in this as in all other campaigns of any character that we will get only as much out of it as we put into it so there must be no shirking of our obvious duty in this regard

The first step in revision included the bracketing of unnecessary words and the breaking up of the long sentences into several short ones The revised paragraph is shown in figure 35

When the paragraph was copied, after revision, it appeared as follows

> A few of the state societies have recently initiated campaigns to counteract the ravages of quackery Such an effort is praiseworthy, and it behooves members of the societies to assist in every possible manner They should also seek to enlist the aid of physicians who are not yet members of the societies

[We know, of course, that] a few of the state societies have recently [taken it upon themselves to] initiated a campaign [intended] to counteract [in some measure] the ravages of quackery [and] such an effort is [a very] praiseworthy, [one and we bespeak for it a considerable degree of success,] and it behooves [us as] members of the societies to assist in every possible manner [the furtherance of this effort, and] They should [also] seek to enlist the aid of physicians [of the profession] who are not yet members of ~~our~~ the societies, that a united front may be presented [in the fight as] this is essential to the success of the campaign [and we must realize further, that] such a united effort does not [at all] excuse [an] individual effort but [rather] makes this [more] obligatory. [and should remember also, that] in this as in all [other] campaigns [of any character, that] we will get only as much (out) [of it] as we put in[to it, so] there must be no shirking of [our] obvious duty [in this regard.]

Fig 35 The first step in revision

that a united front may be presented This is essential to the success of the campaign Such a united effort does not excuse individual effort but makes this obligatory In this as in all campaigns we will get out only as much as we put in There must be no shirking of obvious duty

With further revisions for punctuation diction and emphatic style, the paragraph appeared as in figure 36

> A few ~~of the~~ state societies have recently initiated praiseworthy campaigns to counteract the ravages of quackery. ~~Such an effort is praiseworthy, and~~ It behooves the members ~~of the societies~~ to assist in every possible manner. They should ~~also~~ seek to enlist the aid of physicians who are not yet members~~, of the societies,~~ that a united front may be presented. This is essential to the success of the campaign. ~~Such a~~ United effort, however, does not excuse one from individual effort but makes ~~this~~ it obligatory. In this, as in all campaigns, ~~we~~ one will get out only as much as ~~we put~~ one puts in. There must be no shirking of obvious duty.

FIG 36 The appearance of the material in figure 35 after further revision

Here, then, is the paragraph as finally revised, probably still susceptible of improvement in diction

A few state societies have recently initiated praiseworthy campaigns to counteract the ravages of quackery It behooves the members to assist in every possible manner They should seek to enlist the aid of physicians who are not yet members, that a united front may be presented This is essential to the success of the campaign United effort, however, does not excuse one from individual effort but makes it obligatory In this, as in all campaigns one will get out only as much as one puts in There must be no shirking of obvious duty

16

Proofreading

Nearly all periodicals submit proof to the author prior to publication It is then his privilege and duty to scrutinize the proof—whether in galley or page form—to make certain that the printed article which will appear under his name is entirely to his satisfaction When an article has been prepared by more than one author, proof will be sent to the one whose name appears first, in the absence of written directions to the contrary On special request, proof may be sent to each of the several authors

CORRECTIONS

Reading proof will be facilitated if the following rules are observed

1 Read the proof against the manuscript checking carefully for omissions, errors in spelling and fact and other deviations from copy

2 Never erase or alter any proofreader s marks made on proof

3 Answer all queries written on proof Queries are made in the interest of accuracy, and not in a spirit of criticism (Sometimes they are set in large type, called ' catchlines intended to catch the author's attention) Cross out the question mark or draw a line through the catchline and correct the questioned portion if it is wrong It is unsatisfactory merely to write O K in the margin, for this may not answer the question leaving the proofreader in doubt as to whether the original text or the suggested change is O K

4 Make all corrections legibly in the margin of the proof—never inside the type page or on the manuscript Do not draw lines from the point at which corrections are to be made into the margin of the proof, for they create confusion (see page 186), instead mark your corrections in the margin parallel to the line of type in which the correction is to appear

PARAGRAPHING

¶	Make a new paragraph
no ¶, or run in	No paragraph

INSERTION AND DELETION

the	Insert word, letter or punctuation written in the margin
Out, see copy	Insert matter omitted
^	indicates where insertion is to be made
ꝺ	Delete, or take out, a line or word

SPACING

#	Insert space between words, letters or lines
⁀	Close up, or take out space
(ꝺ)	Take out letter and close up
(#)	Close up, but leave some space
Center	Put in middle of page or line

POSITION

𝟗	Turn to proper position
⊏	Move to left
⊐	Move to right
⊔	Move down a letter character or word
⊓	Move up a letter, character or word
□	Indent one em
=	Straighten a crooked line
‖	Straighten lateral margin of printing
tr	Transpose order of words or letters
tr #	Transpose space
✓✓	Correct uneven spacing
space out	Spread words farther apart
run over	Run over to next line (A two letter division is not allowed)
run back	Run back to preceding line (Such a division is not allowed)

Signs Used in Correcting Proof

PUNCTUATION

⊙	Period
∧	Comma
∨	Apostrophe
:	Colon
;	Semicolon
∨ ∨	Quotation marks
=/	Hyphen (-)
1/en	En dash (–)
1/em, m, |–|	Em dash (—)
2/em	Two em dash (——)
=	Sign of equality (=)
(/)	Parentheses
[/]	Brackets

MISCELLANEOUS

⊥	Push down a space that prints
(?)	Question to author Is this right?
stet	Allow to ~~stand~~ as it is
lc	RESET *in* lower case
caps	Reset in capitals
U	use a capital
small caps	Reset in small capitals
rom	Reset in roman
ital	Reset in italic
bf	Reset in bold face
wf	Wrong font (wrong size or style)
∨	Superior figure
∧	Inferior figure
X	Type is broken or imperfect
≡	under a letter or a word indicates capitals
=	SMALL CAPITALS
—	*Italics*
~	**Bold face**
	BOLD FACE CAPITALS
	BOLD FACE *SMALL CAPITALS*
	Bold face italics

The following paragraph contains a number of errors Below it the paragraph as corrected by the proofreader, and immediate following appears the paragraph after the corrections have been mad

It was of more than incidental imterest to know that the galveston epimedic o last year was accompanied by a scourge of Mosquitoes or the species (Stegomyi *fasciata, or Aedes oegypti*) responsible for the transmission of yellow fever

¶ It was of more than incidental imterest to know that the galveston epimedic of with last year was accompanied by a scourge of Mosquitoes or the species (Stegomyia rom (*fasciata, or Aedes aegypti*) responsible for the transmission of yellow fever a

It was of more than incidental interest to know that the Galveston epidemic of last year was accompanied with a scourge of mosquitoes of the species (Stegomyia fasciata or Aedes aegypti) responsible for the transmission of yellow fever

5 Put a caret inside the type page at the point where an insertic is to go, but do not put a caret in the margin under the material t be inserted

6 Use ink of a color different from that already used on the proo This is to differentiate between your changes and those made by th printer

7 Use the universally accepted proofreader's signs and symbo as illustrated on pages 184 and 185

8 When making changes in proof, whenever possible provid space for new words by omitting the same number of letters in closel adjacent material This will result in a considerable saving in the co of resetting type

9 Retype extensive changes on a full-sized sheet of paper, identif the sheet with the galley or page number and paste it firmly to th margin of the proof Do not use clips or pins

10 When inserting new material on proof, be sure that the ne matter conforms to the style of spelling, punctuation, etc , used in th material already set

11 Cross out all material to be eliminated

12 Indicate in the margin where illustrations are to be inserted i the proof (The publisher, however, reserves the right to digress fron your choice if it is unsuitable because of mechanical or economic considerations)

13 Facing pages may each be one line long or one line short, but should you be asked (a) to supply material to add a line or (b) to delete material to eliminate a line, do so carefully in order that the pages may be of the proper depth

14 Remember that, if set on the linotype machine, a change of so little as one letter or mark of punctuation in a line will necessitate the resetting of the entire line

15 Indicate on galley proof what the running head should be if the title of the article is too long to be accommodated

16 Never cut proof apart, for it represents type as standing on the printer's table He makes corrections by following the proof, and can do so more rapidly if all the material is available

17 Mark your duplicate proof exactly like the master set

18 Return the printer's master set promptly, together with the manuscript Meeting scheduled publication dates partially depends on your cooperation in this respect

19 Make the index from your duplicate set of proofs

The author should remember that the proof has been sent to him for *reading*, not rewriting Consciousness of this fact will save him considerable expense when the cost of author's alterations is added up on publication

17 Indexing

In compiling an index, the author should remember that he is constructing a tool intended for one purpose only to enable the reader *quickly and easily* to find the subject he is interested in The author already knows the subject matter of his book, but too often he forgets that the reader must depend on a more or less imperfect knowledge of what to seek, therefore index entries should be couched in language understandable to the reader For example, should the author index all entries pertaining to that subject under the words "Hansen's disease," forgetting the commonly used "leprosy," a reader who may be unfamiliar with the former term may think the subject of leprosy is not discussed

ORGANIZING THE MATERIAL

Usually the author will receive a duplicate set of page proofs, simultaneously with the printer's master set Before returning the printer's set, he should incorporate every mark thereon into his own set of pages, so that he can retain an exact copy of the proof as released to the printer He should pay particular attention to any marks indicating transposition of material from one page to another, for this will affect the subsequent pagination and, in turn, the index

The first step in compiling an index is to check all the pages for proper numerical sequence Then, using a colored crayon pencil (preferably red), the author should underscore those words, phrases and subjects he wishes to appear in the index This procedure should be followed throughout the entire page proof He need not restrict himself to underlining items in the text only, but may—and should—include center heads and side heads as well as chapter titles Simultaneously, as he progresses through the page proof, he should note in the margin of the page any cross references that should be accommodated in the writing of the index entries For example, if "pregnancy" is under discussion, he should write down the synonyms

"gestation" and "gravidity." (Later he will choose one of these words under which to group the page references, treating the other words as cross references See page 190)

As a general rule, to be proportionate in length, an index should contain about three times as many entries as there are pages of text indexed—in other words, each page of text will contribute about three entries to the index By no means is this rule of thumb to be construed as obligatory, it is offered merely as a guide to the author who is endeavoring to build a functional index which tells the story but is free of "padding"

After laying the above groundwork, the author is ready for the actual writing of the items which will comprise the index

WRITING THE ENTRIES

The author may write the entries in longhand, or he may type them (see page 193) In either case, work will be facilitated by using a continuous roll of paper tape such as is used in cash registers It is of a weight conducive to easy handling and later can be cut apart into separate entries for rearrangement into alphabetical order

Another useful device is regulation size 8½ by 11 inch paper perforated into some 10 parts Each entry may be written or typed on one of the sections and later the whole can easily be separated into its parts

Cards measuring 3 by 5 inches are used frequently, but since each must be inserted individually into the typewriter considerable inconvenience results

The author should decide what is the key word in the phrase previously underscored in red—the word most likely to be sought by the reader Usually the key word will be a noun Generally speaking an index should be composed of noun entries—both main entries and subentries—and not of adjective entries unless (a) such adjectives possess a particular significance (as "catalytic reagents") or (b) the noun is vague (as "hereditary conditions")

Example Suppose on page 80 the phrase "external carotid artery" has been underlined Since the key word is "artery" the entry should be written "artery carotid external, 80 (The inversion of the words "external carotid"

permits the later insertion of other subentries under the noun "artery" such as "internal carotid," "anterior cerebral," etc)

If a subject can be discussed under several key words, the author should enter it under all such words, either with the page reference or with a cross reference to the item he considers most important Examples follow

Bronchopneumonia, 87
  penicillin in, 88

Gestation (*see* Pregnancy)
Gravidity (*see* Pregnancy)
Pregnancy, 206–243

and also

Penicillin 102
  in bronchopneumonia, 88

Since each entry and subentry is written on a separate card or slip, it follows that full information must be given for each one as they are not in any order when being written For example, since the entry "muscles" may prove to have more than one subentry, the identifying word "muscles" must appear on every subentry even though it will be eliminated in the final editing (see page 193)

Likewise in indexing, the use of verbs and phrases should be avoided in favor of nouns Examples follow

Avoid Streptomycin, administering, 102
Avoid Streptomycin, how to administer, 102
Use Streptomycin, administration of, 102

Avoid Antibiotics and their use in combating infection, 76–110
Use Antibiotics use of to combat infection, 76–110

When writing the entries, the indexer should try to maintain a uniform style throughout, for an ounce of care in this respect will save a pound of work in the final over-all editing of the completed index manuscript He should write inclusive page folios or numbers in full, e g , 358–362 (not 358–62), 26–28 (not 26–8) He should also write all entries exactly as they appear in the pages of text, paying particular attention to hyphenation and the spelling of proper names and foreign words

REFERENCES TO ILLUSTRATIONS

Index references to illustrations may be differentiated from those pertaining to the text proper by underscoring the page number or

folio (These underscored folios then may be set in either italics or boldface, according to the preference of the publisher) If this plan is adopted, a line should appear on page 1 of the index to the effect that "Page numbers set in *italics* [or **boldface**] refer to illustrations thereon" Examples follow

Morbidity, *78*, 103
Morbidity, **78**, 103

REFERENCES TO FOOTNOTES AND TABLES

Index references to footnotes or tables may be expressed by using a lower case n (for footnote) or t (for table) closed up to the page folio Examples follow

Stomatitis, 38n, 42
Strabismus, 13, 26t

CROSS REFERENCES

For easy readability, the following style is suggested for simple cross references where no folio is linked to the entry

Fever, 38
  childbed (*see* Fever puerperal)
  puerperal 42
Oxytocin (*see* Pitocin)

When an entry pertains not only to a page in the book, but also to another entry, the following style is suggested

Riboflavin, 262 (*see also* Vitamin B_2)

ALPHABETIZING THE ENTRIES

The first step in alphabetizing is to arrange the entries into 26 groups—one for each letter of the alphabet Then, taking the letter A, and later proceeding in like manner with the other letters of the alphabet, the author should arrange the many main entries, subentries and sub-subentries into alphabetical order, for the time being disregarding an apparent repetition of many of the key words (This situation will be remedied in the final editing—see page 193)

Words which are stems in themselves should precede words con-

taining that stem (e g , "milk" and all its subentries should precede "milk*ing*" even though the subentries of "milk" start with a letter in the alphabet succeeding "i").

Milk sugar, 56
Milking, 58

Single word entries should precede compound word entries containing the same word, as follows

Milk, testing, 56
Milk proteins, 108

Following is an example combining the above illustrations

Milk testing, 56
  turbidity, 54
Milk proteins, 108
Milk sugar, 76
Milking, 58
Milky Way, 98

With the exception of combining forms, hyphenated words and proper names should be treated as separate words, as follows

Brown, Xavier, 22
Brown-Williams Henry, 84
Browne, F T , 100

Cardioneurosis, 95 }
Cardio-omentopexy, 71 } combining forms treated as one word
Cardiopath, defined, 53 }

Gram-molecule, 89
Grammole, defined, 65

When alphabetizing eponymic entries, the '*s* in the possessive case should be ignored, as follows

Dalton, Peter, 23
Dalton's law, 10
Dalton phenomenon, 82

EDITING THE ENTRIES

After arranging the various items in alphabetical order and numbering them in sequence, the author should read the entire index

to see that a consistent style of capitalization and punctuation has been used

At this time, as illustrated below, he should cross out the superfluous information necessarily included when the various entries were being written Simultaneously with this crossing out of excess material he should also indicate the proper indention of the various subentries and sub-subentries One way is to use the conventional em marks as follows

Muscle(s), 66, 67
Muscles, abducent, (see Muscle, rectus lateralis)
Muscles
abnormal movements, 36
Muscles
atrophy of, electrical tests in, 37
Muscles, facial,
paralysis of, in myasthenia gravis, 91

Mult ple scleros s (*see* Scleros s mult ple)
Muscl (s) 66 67
abducent (*see* Muscle rectus lateral s)
abnormal movements of 36
adductor poll c s test ng of 39
atax a of (*ee* Atax a of muscles)
atrophy of 36
electr cal tests in 37
n acute anter or pol omyel t s 111
secondary 87
to cort cal les ons 88
f c al, 147
contractures of 24
paralys s of in les ons of seven h cran al
nerve 147
n m yasthen a grav s 91
in nuclear les ons 2 23
n polyneurit s 147

for runovers

Another way is to employ a series of colored crayon pencil strokes before each entry one stroke indicating "set flush,' two strokes indicating "set one em indent," three strokes indicating "set two ems indent," etc Lines that run over to a second line (called runovers, overruns or turnovers) should be marked to be indented one em more than the most subordinate entry

Muscle(s) 66 67
Muscles abducent
(see Muscle rectus lateralis)
Muscles
abnormal movements, 36
Muscles
atrophy of electrical tests in 37
Muscles, facial,
paralysis of in myasthenia gravis,
91

Mult ple scleros s (*ee* Scleros s mult ple)
Muscle(s) 66 67
abducent (*ee* Muscle rectus lateral s)
abnormal movemen s of 36
adductor poll c s test ng of 39
atax a of (*ee* Atax a of muscles)
atrophy of 36
electr cal tests n 37
n acu e anter or pol omyel t s 111
secondary 87
to co t cal les ons 88
f c al 147
con actu es of 24
paralys s of n les ons of seven h cran al
nerve 147
n mya hen a g a s 91
n nucl ar les ons 2 23
n polyneur t s 147

runovers

In both illustrations, representative examples are shown written in longhand, together with their accompanying counterparts as typed. (Obviously these illustrative index samples are the product of the typesetting machine, but the principle remains the same.) Whichever plan is followed, it should be done carefully.

Should there be too few proper names to make a separate "Index of Authors," such names may be incorporated in the "Subject Index" but marked to be set in capitals and small capitals to distinguish them from the subject entries. To avoid confusion, all proper names should bear identifying initials or the Christian name if available. For example, "Smith, 452" in an index containing references to other people named Smith would prove of little value to the reader. "Smith, Henry, 452" or "Smith, R. W., 87" is preferable.

In the final editing, the indexer should consolidate on one slip or card, in logical numerical sequence, all entries pertaining to the same key word. For example, if the subject "acromegaly" is discussed in three places in the book (on pages 12, 34 and 56–62, say), in alphabetizing the indexer will have filed these three separate cards in numerical order. These separate entries should now be converted into one card to send to the printer. The result will read "Acromegaly, 12, 34, 56–62."

On the other hand, if two or more entries are composed of compound names containing the same preceding modifiers, the compound name should be considered as the main entry and repeated in full. Examples follow:

Absolute alcohol, 240
Absolute ether, 309
Aniline, 34
  chart of reactions, 36
  salts of, 38
Aniline black, 40
Aniline blue, 41

Finally the indexer should check all cross references to eliminate those so-called "dead-end" or "runaround" items that chase the reader fruitlessly from one to another to no purpose. Examples follow:

Plessimeter (*see* Pleximeter)
Pleximeter (*see* Plessimeter)

TYPING THE INDEX

After completing the editing of the index, the cards or slips may be submitted for printing or they may be typed in sequence on regular size 8½ by 11 inch paper, thus reducing the over-all bulk of the index manuscript Since errors may creep in during the new typing the new manuscript must again be read critically, comparing it with the original cards

The typing should be double spaced and the indentions of the various subentries kept uniform

In both illustrations, representative examples are shown written in longhand, together with their accompanying counterparts as typed (Obviously these illustrative index samples are the product of the typesetting machine, but the principle remains the same) Whichever plan is followed, it should be done carefully

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Aniline blue, 41

Finally the indexer should check all cross references to eliminate those so-called "dead-end ' or "runaround ' items that chase the reader fruitlessly from one to another to no purpose Examples follow

Plessimeter (*see* Pleximeter)
Pleximeter (*see* Plessimeter)

Acta med orient —Acta medica orientalia The Palestine and Near East Medical Journal P O B 3011, Tel Aviv, Palestine

Acta med Scandinav —Acta medica Scandinavica Stockholm

Acta med URSS —Acta medica URSS Rakhmanovskiy per , 3 Moskva

Acta obst et gynec Scandinav —Acta obstetricia et gynecologica Scandinavica Prof E Ahlstrom, Karolinska sjukhuset Stockholm 60

Acta ophth —*Acta ophthalmologica Ejnar Munksgaard Nørregade 6 København*

Acta orthop Scandinav —Acta orthopaedica Scandinavica Ejnar Munksgaard, Nørregade 6 København

Acta oto-laryng —Acta oto-laryngologica Hospital Sabbatsberg Stockholm.

Acta oto-rhino-laryng belg —Acta oto-rhino-laryngologica belgica Dr P Hennebert rue Mercélis 86 Bruxelles (Continuation of Bull Soc. belge d otol , rhinol , laryng)

Acta pædiat.—Acta pædiatrica Prof I Jundell Ed 23 Artillerigatan, Stockholm

Acta pædiat belg —Acta pædiatrica belgica 64 rue de la Concorde Bruxelles

Acta path et microbiol Scandinav —Acta pathologica et microbiologica Scandinavica Ejnar Munksgaard Nørregade 6 København

Acta pharmacol et toxicol —Acta pharmacologica et toxicologica Ejnar Munksgaard Nørregade 6 Copenhagen

Acta physiol Scandinav —Acta physiologica Scandinavica P A Norstedt & Söner Tryckerigatan 2 Stockholm 2

Acta psychiat et neurol —Acta psychiatrica et neurologica Dr Knud H Krabbe Dronningens Tværgade 6 København

Acta radiol —Acta radiologica P A Norstedt & Söner Stockholm

Acta trop —Acta tropica Zeitschrift fur Tropenwissenschaften und Tropenmedizin Prof Dr R. Geigy Stapfelberg 7 Basel

Acta tuberc Scandinav —Acta tuberculosea Scandinavica Ejnar Munksgaard Nørregade 6 København

Acta urol —Acta urologica Üllői út 78/b X Kapu Budapest 8

Actas dermo-sif —Actas dermo-sifiliográficas Alcalá 117 Madrid

Actas Soc de cir de Madrid —Actas de la Sociedad de cirugia de Madrid Avenida de Jose Antonio 34 Madrid

Actual med peruana —Actualidad médica peruana Casilla de Correo No 536 Lima

Arztl Monatshft —Arztliche Monatshefte für berufliche Fortbildung Cahiers mensuels de médecine GBS Verlag Gerber Buchdruck Schwarzenburg Bern

Alcohol Hyg —Alcohol Hygiene 2030 Park Ave Baltimore 17 Md

Alergia —Alergia Anchorena 1338 Dpto B Buenos Aires

Am Heart J —American Heart Journal *C V Mosby Co 3207 Washington Blvd St Louis 3*

Am J Anat —American Journal of Anatomy Wistar Institute 36th St and Woodland Ave Philadelphia 4

Am J Clin Path —American Journal of Clinical Pathology [including] Technical Section Williams & Wilkins Co Mt Royal and Guilford Aves Baltimore 2

Am J Digest Dis —The American Journal of Digestive Diseases Sandfield Publishing Co 435 Lincoln Bank Tower Fort Wayne Indiana (Continuation of Am J Digest Dis & Nutrition)

Am J Dis Child —American Journal of Diseases of Children American Medical Association 535 N Dearborn St Chicago 10

Am J Hyg —American Journal *of Hygiene 615 N Wolfe St Baltimore 5*

Am J Hyg ,Monographic Series —(Listed under Books)

Am J M Sc —American Journal of the Medical Sciences Lea & Febiger, 600 S Washington Sq , Philadelphia 6

Am J M Technol —The American Journal of Medical Technology Medical Center Bldg , Lafayette, La (Continuation of Am Soc. Clin Lab Techn and of Bull Am Soc Clin Lab Techn)

Am J Med —The American Journal of Medicine Yorke Publishing Co Inc 49 W 45th St New York 19

Am J Ment Deficiency —American Journal of Mental Deficiency 372 374 Broadway Albany N Y (Continuation of Proc Am A Ment Deficiency)

Am J Nursing —American Journal of Nursing 1790 Broadway New York 19

Am J Obst & Gynec —American Journal of Obstetrics and Gynecology C V Mosby Co 3207 Washington Blvd St Louis 3

Am J Occup Therapy —The American Journal of Occupational Therapy American Occupational Therapy Assoc AJOT Publishing Co 739 Boylston St Boston 16

Am.J Ophth —American Journal of Ophthalmology Ophthalmic Publishing Co 837 Carew Tower Cincinnati

Am J Orthodontics —American Journal of Orthodontics and Oral Surgery C V Mosby Co 3207 Washington Blvd St Louis 3 (Continuation of Internat J Orthodontia)

Am J Orthopsychiat —American Journal of Orthopsychiatry 25 W 54th St New York 19

Am J Path —American Journal of Pathology Dr C V Weller East University Ave Ann Arbor Michigan

Am J Pharm —The American Journal of Pharmacy and the Sciences Supporting Public Health Philadelphia College of Pharmacy and Science 43d St Kingsessing and Woodland Aves Philadelphia 4

Am J Phys Anthropol —American Journal of Physical Anthropology Wistar Institute 36th St and Woodland Ave Philadelphia 4

Am J Physiol —American Journal of Physiology American Physiological Society Managing Editor Dr D R Hooker 19 W Chase St Baltimore 1

Am J Psychiat —The American Journal of Psychiatry The American Psychiatric Association 9 Rockefeller Plaza New York 20

Am J Psychol —The American Journal of Psychology Morrill Hall Cornell University Ithaca N Y

Am J Psychotherapy —American Journal of Psychotherapy 16 West 77th St New York 24

Am J Pub Health —American Journal of Public Health and the Nation s Health 1790 Broadway, New York 19

Am J Roentgenol —American Journal of Roentgenology and Radium Therapy Charles C Thomas 301 327 F Lawrence Ave Springfield Ill

Am J Surg —American Journal of Surgery 49 W 45th St New York 19

Am J Syph ,Gonor & Ven Dis —American Journal of Syphilis Gonorrhea and Venereal Diseases C V Mosby Co 3207 Washington Blvd , St Louis 3

Am J Trop Med —American Journal of Tropical Medicine Williams & Wilkins Co , Mt Royal and Guilford Aves , Baltimore 2

Am.J Vet.Research —American Journal of Veterinary Research American Veterinary Medical Association 600 S Michigan Ave , Chicago

Am Pract —American Practitioner 227–231 S Sixth St Philadelphia 5

Am Rev Soviet Med —American Review of Soviet Medicine American-Soviet Medical Society, 58 Park Ave, New York 16

Am.Rev.Tuberc —American Review of Tuberculosis [including Spanish summaries] National Tuberculosis Association, 1790 Broadway, New York 19

Amatus.—Amatus Lusitanus Revista de medicina e cirurgia Livraria Portugal, Rua do Carmo, 70, Lisboa

An argent de oftal —Anales argentinos de oftalmología Organo oficial de la Cátedra de oftalmología (Fac de medicina de Rosario) y de la Sociedad de oftalmología del litoral Hospital Centenario, Sala 10 Rosario

An brasil de dermat e sif —Anais brasileiros de dermatologia e sifilografia Caixa Postal 389, Rio de Janeiro

An brasil de ginec —Anais brasileiros de ginecologia Caixa Postal 1289, Rio de Janeiro (Continuation of Ann brasil de gynec)

An Casa de salud Valdecilla —Anales de la Casa de salud Valdecilla Instituto médico de postgraduados Apartado 282, Santander España

An de cir —Anales de cirugía Calle Paraguay 40, Rosario, Argentina

An Dispen púb nac para enferm d ap digest —Anales del Dispensario público nacional para enfermedades del aparato digestivo Aniceto Lopez Junín 845, Buenos Aires

An Fac med, Lima —Anales de la Facultad de medicina Casilla 529, Lima

An Fac de med de Montevideo —Anales de la Facultad de medicina de Montevideo Facultad de medicina, Avenida General Flores, 2125, Montevideo

An Fac.de med de Pôrto Alegre —Anais da Faculdade de medicina de Pôrto Alegre Caixa Postal No 657, Pôrto Alegre, Rio Grande do Sul Brasil

An Fac de med da Univ de São Paulo —Anais da Faculdade de medicina da Universidade de São Paulo, Caixa Postal 100 B, São Paulo (Continuation of Ann Fac de med da Univ de São Paulo)

An méd, México —Analecta médica Organo oficial de la Sociedad médica del Sanatorio español Boulevard Miguel de Cervantes Saavedra México D F

An.paulist de med e cir —Anais paulistas de medicina e cirurgia Caixa Postal, 1574 São Paulo (Continuation of Ann paulist de med e cir)

An Soc biol Bogotá —Anales de la Sociedad de biología de Bogotá Calle 24, No 7–42 Bogotá

An Soc méd-quir d Guayas —Anales de la Sociedad medico-quirurgica del Guayas Apartado de Correo 1134, Guayaquil, Ecuador

An Soc mex de oftal y oto-rino-laring —Anales de la Sociedad mexicana de oftalmología y oto-rino-laringología Escuela nacional de medicina esq Brasil y Venezuela, México, D F

An Soc puericult Buenos Aires See Rev Soc puericult Buenos Aires

Analyst —The Analyst W Heffer & Sons, Ltd Hills Road, Cambridge, England

Anat Anz.—Anatomischer Anzeiger Gustav Fischer Jena

Anat Rec —Anatomical Record Wistar Institute, 36th St and Woodland Ave Philadelphia 4

Anesth & Analg —Current Researches in Anesthesia and Analgesia 318 Hotel Westlake Rocky River 16, Ohio

Anesth et analg —Anesthésie et analgésie Masson & Cie, 120 Boulevard Saint Germain Paris 6e

Anesthesiology —Anesthesiology The Journal of the American Society of Anesthesiologists, Inc Dr William G Schmidt, 235 N 15th St, Philadelphia 2

Angle Orthodontist —The Angle Orthodontist Edward H Angle Society of Orthodontia, 55 E Washington St, Chicago

Ann Allergy —Annals of Allergy (including Spanish summaries) Official Journal of the American College of Allergists 401 La Salle Medical Bldg , Minneapolis 2

Ann d'anat path —Annales d anatomie pathologique et d anatomie normale médico-chirurgicale Masson & Cie 120 Boulevard Saint Germain Paris 6°

Ann Biochem & Exper Med —Annals of Biochemistry and Experimental Medicine Indian Institute for Medical Research P27 Prinsep St Calcutta

Ann brasil de gynec —Continued as An brasil de ginec

Ann chir et gynaec Fenniae —Annales chirurgiae et gynaecologiae Fenniae Yrjönkatu 17 Helsinki

Ann Dent —Annals of Dentistry Dr C Fred Ga Nun Business Manager 30 Central Park South New York 19 (Continuation of J New York Acad Dent)

Ann de dermat et syph —Annales de dermatologie et de syphiligraphie Bulletin de la Société française de dermatologie et de syphiligraphie Masson & Cie 120 Boulevard Saint Germain Paris 6°

Ann d endocrinol —Annales d endocrinologie Masson & Cie 120 Boulevard Saint Germain Paris 6°

Ann Eugenics —Annals of Eugenics Galton Laboratory for National Eugenics Rothamsted Experimental Station Harpenden Herts England

Ann d hyg —Annales d hygiène publique industrielle et sociale J B Baillière & fils 19 rue Hautefeuille Paris

Ann d ig —Annali d igiene Via Antonio Salandra (già delle Finanze) 14 Roma.

Ann Inst Pasteur —Annales de l Institut Pasteur Masson & Cie 120 Boulevard Saint Germain Paris 6°

Ann Int Med —Annals of Internal Medicine American College of Physicians Prince and Lemon Sts Lancaster Pa

Ann Ist Carlo Forlanini —Annali dell Istituto Carlo Forlanini Monteverde Nuovo Roma

Ann ital di chir —Annali italiani di chirurgia Casella Postale 282 Bologna

Ann laring ,otol —Annali di laringologia otologia rinologia e faringologia Prof Dott Carlo Bruzzone Ospedale Maggiore di S Giovanni Torino

Ann méd —Annales de médecine Masson & Cie 120 Boulevard Saint Germain Paris 6°

Ann med exper et biol Fenniae —Annales medicinae experimentalis et biologiae Fenniae Yrjonkatu 17 Helsinki (Continuation of Acta Soc med fenn duodecim Ser A)

Ann med int Fenniae —Annales medicinae internae Fenniae Yrjönkatu 17 Helsinki

Ann d'ocul —Annales d oculistique Gaston Doin & Cie 8 Place de l Odéon Paris 6°

Ann Osp psichiat Perugia —Annali dell Ospedale psichiatrico di Perugia Presso l Ospedale psichiatrico di Perugia Casello Postale N° 79, Perugia

Ann ostet e ginec —Annali di ostetricia e ginecologia Via Commenda 12 Milano

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Ann.d oto-laryng —*Les annales d oto-laryngologie Bulletin de la Société de laryngologie des hôpitaux de Paris* Masson & Cie 120 Boulevard Saint Germain Paris 6°

Ann ottal e clin ocul —Annali di ottalmologia e clinica oculistica Clinica oculistica della Università Genova

Ann pædiat —Annales pædiatrici (International Review of Pediatrics) S Karger Holbeinstrasse 22 Basel (Continuation of Jahrb f Kinderh)

Ann de parasitol —Annales de parasitologie humaine et comparée Masson & Cie 120 Boulevard Saint Germain Paris 6°

Ann paulist.de med e cir —Continued as An paulist de med e cir

Ann radiol diag —Annali di radiologia diagnostica L Cappelli Via Farini 6 Bologna

Ann Rev Biochem —Annual Review of Biochemistry Annual Reviews Inc Stanford University P O , Calif

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Ann Rheumat Dis —Annals of the Rheumatic Diseases H K Lewis & Co Ltd 136 Gower St London, W C 1 (Continuation of Rheumat D s)

Ann Surg —Annals of Surgery J B Lippincott Co 227–231 S 6th St Philadelphia 5

Ann Trop Med —Annals of Tropical Medicine and Parasitology University Press 177 Brownlow Hill, Liverpool 3

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Antiseptic —The Antiseptic 323 Thambu Chetty Street G T Madras

Ap respir y tuberc ,Santiago —Aparato respiratorio y tuberculosis Correo 11 Santiago de Chile

Arch am de med. —Archivos americanos de medicina revista americana de ciencias médicas Rodríguez Pena 546 Buenos Aires

Arch antropol crim —Archivio di antropologia criminale psichiatria e medicina legale Bocca Via Durini 31 Milano

Arch argent de enferm d ap digest y de la nutricion —Archivos argent nos de en fermedades del aparato digestivo y de la nutricion Junín 845 Buenos Aires

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Arch belges dermat et syph —Archives belges de dermatologie et de syphil graphie 64 rue de la Concorde Bruxelles

Arch Biochem —Archives of Biochemistry Academic Press Inc 125 E 23rd St New York 10

Arch biol ,Paris —Archives de b olog e Masson & Cie 120 Boulevard Saint Germain Paris 6[e]

Arch brasil de med —Archivos bras leiros de medicina Rua Evaristo da Ve ga 16 Rio de Janeiro

Arch cubanos cancerol —Archivos cubanos de cancerología Organo oficial del Instituto del Radium Hosp tal Ntra Sra de las Mercedes La Habana Calle 21 Vedado Habana

Arch Dermat & Syph —Archives of Dermatology and Syphilology American Medical Association 535 N Dearborn St Ch cago 10

Arch f Dermat u Syph —Archiv fur Dermatologie und Syphilis Springer Verlag OHG Mölkerbastei 5 Wien I

Arch Dis Childhood —Archives of Disease in Childhood British Medical Assoc ation House Tavistock Sq London W C 1

Arch 'E Maragliano" pat.e clin —Archivio E Maragliano" di patologia e clinica Viale Benedetto 15 Genova

Arch españ urol —Archivos espanoles de urología Atocha 115, Madrid

Arch f exper Path u Pharmakol —Naunyn Schmiedebergs Archiv fur experimentelle Pathologie und Pharmakolog e Springer Verlag Linkstrasse 22/24 Berlin W 9

Arch farm y bioquím Tucumán — Archivos de farmacia y bioquímica de Tucumán. Facultad de farmacia y bioquímica, Universidad nacional de Tucumán, Ayacucho 482 Tucumán, Republica Argentina

Arch fisiol Archivio di fisiologia Ditta Editrice Luigi Niccolai Via Faenza 58, Firenze

Arch franç pédiat Archives françaises de pédiatrie Gaston Doin & Cie, 8, place de l'Odéon Paris 6° Masson & Cie, 120 Bd St-Germain Paris 6° (Continuation of Arch de méd d enf Bull Soc pédiat de Paris and Rev franç de pédiat)

Arch f d ges Physiol Pflügers Archiv für die gesamte Physiologie des Menschen und der Tiere Springer-Verlag Lankstrasse 22 24, Berlin W 9

Arch histol norm y pat — Archivos de histología normal y patológica Institución Cultural Española Buenos Aires

Arch Hosp clín niños Roberto del Río — Archivos del Hospital clínico de niños Roberto del Río A Zañartu 1095 Santiago Chile (Continuation of Arch d. Hosp niños Roberto del Río)

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Arch Inst cardiol México. Archivos del Instituto de cardiología de México Calzada de la Piedad 300 México D F (Continuation of Arch latino am de cardiol y hemat)

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Arch Int Med - Archives of Internal Medicine American Medical Association, 535 N Dearborn St Chicago 10

Arch internat de neurol —Archives internationales de neurologie J Peyronnet & Cie 33 rue Vivienne, Paris 2°

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Arch internat de physiol —Archives internationales de physiologie S A Vaillant Carmanne, 4 place St -Michel, Liége

Arch ital chir.—Archivio italiano di chirurgia L. Cappelli, Via Farini 6, Bologna

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Arch ital laring —Archivio italiano di laringologia R Vitto-Masser, Via Gennaro Serra, 24, Napoli (105)

Arch ital mal app diger —Archivio italiano delle malattie dell'apparato digerente L Cappelli Via Farini, 6 Bologna

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Arch ital pediat e puericolt —Archivio italiano di pediatria e puericoltura L. Cappelli, Via Farini, 6, Bologna

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Arch.f Kinderh —Archiv für Kinderheilkunde Verlag von Ferdinand Enke, Hasenbergsteige 3, Stuttgart W

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Arch Ophth —Archives of Ophthalmology American Med cal Association 535 N Dearborn St , Chicago 10

Arch.f.orthop u Unfall-Chir —Archiv für orthopädische und Unfall Chirurgie mit besonderer Berücksichtigung der Frakturenlehre und der orthopädisch-chirurgischen Technik Springer Verlag OHG Mölkerbastei 5 Wien I

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Arch ottal —Archivio di ottalmologia Prof V Rossi R Cl nica Oculistica Pisa

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Arch.Pediat —Archives of Pediatrics E B Treat & Co , 45 E 17th St New York 3

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Arch Phys Med Archives of Physical Medicine Official Journal American Congress of Physical Medicine 30 N Michigan Ave , Chicago 2 (Continuation of Arch Phys Therapy)

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Arch psicol ,neurol e psichiat —Archivio di psicologia, neurologia e psichiatria Piazza S Ambrogio N 9, Milano

Arch f Psychiat Archiv für Psychiatrie und Nervenkrankheiten Springer Verlag OHG Mölkerbastei 5 Wien I

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Arch per le sc med —Archivio per le scienze mediche Via Martiri della Libertà 15 Torino

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Arch Soc oftal hispano-am —Archivos de la Sociedad oftalmológica hispano-americana Serrano 93 Madrid

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Arch venezol Soc de oto-rino-laring ,oftal ,neurol —Archivos venezolanos de la Sociedad de oto-rino-laringología oftalmología neurología Apartado 1428, Caracas

Arizona Med —Arizona Medicine Journal of Arizona State Medical Association 422 Heard Bldg Phoenix

Army M Bull —Continued as Bull U S Army M Dept

Arq assist psicopat estad São Paulo —Arquivos da assistência a psicopatas do estado de São Paulo Hospital de Juquerí Estação de Juquerí S P R São Paulo (Continuation of Arq Serv assist psicopat estad São Paulo)

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Arq brasil de cir e ortop —Arquivos brasileiros de cirurgia e ortopedia Rua da Imperatriz 83, Recife Pernambuco Brasil (Continuation of Arq de cir e ortop)

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Arq brasil urol —Arquivos brasileiros de urologia Sob os auspicios da Cadeira de urologia da Faculdade de medicina da Universidade de São Paulo e do Colégio brasileiro de urologistas Caixa Postal 297, São Paulo

Arq de cir clin e exper —Arquivos de cirurgia clinica e experimental Dept de técnica cirúrgica e cirurgia experimental da Faculdade de medicina da Universidade de São Paulo Caixa Postal 4066, São Paulo

Arq de dermat e sif de São Paulo —Arquivos de dermatologia e sifiligrafia de São Paulo Rua Libero Badaró, 488, São Paulo (Continuation of Arch de dermat e syph de São Paulo)

Arq de hig e saúde pub ,São Paulo —Arquivos de higiene e saude pública Alameda Barão de Limeira 458, São Paulo

Arq Inst bact Câmara Pestana —Arquivos do Instituto bacteriológico Câmara Pestana Lisboa

Arq Inst biol ,São Paulo —Arquivos do Instituto biologico Caixa Postal 119 A São Paulo (Continuation of Arch Inst biol)

Arq mineir leprol —Arquivos mineiros de leprologia Orgao oficial da Sociedade mineira de leprologia Belo Horizonte, Minas Gerais Brasil

Arq neuro-psiquiat ,São Paulo —Arquivos de neuro-psiquiatria Caixa Postal 3461, São Paulo

Ateneo parmense —L'ateneo parmense Organo delle Facoltà de medicina e di scienze [illegible] versità di Parma Palazzo Universitario Parma

[illegible] biologia—clinica e terapia Via di Priscilla 101,

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Australian & New Zealand J [illegible] Butterworth & Co Ltd 8 O Conn[illegible] Surgeons, Australasia)

Australian J Exper Biol & M Sc —Australian Journal of Experimental Biology and Medical Science University of Adelaide Adelaide

Avenir med —L'avenir médical 18 rue Saint Nestor Lyon

Bact Rev —Bacteriological Reviews Williams & Wilkins Co., Mt Royal and Guilford Aves , Baltimore 2

Balneologe —Der Balneologe Springer Verlag OHG Mölkerbastei 5 Wien I

Beitr z gerichtl Med —Beitrage zur gerichtlichen Medizin Franz Deuticke, Wien

Beitr z Klin Tuberk —Beiträge zur Klinik der Tuberkulose und spezifischen Tuberkulose Forschung Springer Verlag OHG Mölkerbastei 5 Wien I

Beitr z path Anat u z allg Path —Beiträge zur pathologischen Anatomie und zur allgemeinen Pathologie Gustav Fischer Jena

Belg tijdschr geneesk —Belgisch tijdschrift voor geneeskunde Minderbroederstraat 38 Leuven

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Biol Bull —The Biological Bulletin Prince and Lemon Sts , Lancaster, Pa

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Bol Acad nac de med de Buenos Aires. Boletín de la Academia nacional de medicina de Buenos Aires Las Heras 3092 Buenos Aires

Bol Asoc méd de Puerto Rico Boletín de la Asociación médica de Puerto Rico Avenida Manuel Fernández Juncos Parada 19 Santurce San Juan

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Bol hosp ,Caracas Boletín de los hospitales civiles del Distrito Federal. Apartado de Correos 1428 Caracas

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Bol d Hosp -San "El Peral " Boletín del Hospital-Sanatorio El Peral ' enfermedades broncopulmonares y tuberculosis Estación Los Quillayes " Santiago Chile

Bol d Inst clin quir Boletín del Instituto de clínica quirúrgica Universidad de Buenos Aires Paraguay 2150 Buenos Aires

Bol Inst internac.am.de protec a la infancia.—Boletín del Instituto internacional americano de protección a la infancia Calle 18 de Julio 1648 Montevideo

Bol Inst de med exper para el estud y trat d cáncer Boletín del Instituto de medicina experimental para el estudio y tratamiento del cáncer [With French German and English summaries] Av San Martín 5481 Buenos Aires

Bol Liga contra el cáncer —Boletín de la Liga contra el cáncer Edificio del Instituto del Cáncer Habana

Bol méd -social,Santiago —Boletín médico-social de la Caja de seguro obligatorio Casilla 7 D Santiago Chile

Bol Ofic.san panam Boletín de la Oficina sanitaria panamericana [With occasional English translations] Washington D C

Bol San São Lucas. Boletim do Sanatorio São Lucas Suplemento de "Anais paulistas de medicina e cirurgia Rua Pirapitingui 114 São Paulo

Bol.Soc biol Concepción, Chile —Boletín de la Sociedad de biología de Concepción (Chile) Casilla 29 Concepción Chile

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Bol.Soc cir Chile —Boletín de la Sociedad de cirugía de Chile Merced 565, Santiago de Chile

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Bol Soc de obst y ginec de Buenos Aires —Boletín de la Sociedad de obstetricia y ginecología de Buenos Aires Santa Fe 1171, Buenos Aires

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Boll d mal d orecchio, d gola, d naso —Bollettino delle malattie dell orecchio della gola del naso di tracheo-bronco-esofagoscopia e di fonetica Piazza Madonna 1 Firenze

Boll e mem Soc piemontese chir —Bollettino e memorie della Società piemontese di chirurgia Torino

Boll d ocul —Bollettino d oculistica L Cappelli Via Farini 6 Bologna

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Boll d Soc ital de microbiol —Bollettino della Società italiana di microbiologia Via Darwin 20 Milano 124 (Continuation of Boll d sez ital d Soc internaz di microbiol)

Boll Soc med -chir Modena —Bollettino della Società medico-chirurgica de Modena Tipografia Immacolata Concezione Modena

Boll Soc med -chir, Pavia —Bollettino della Società medico-chirurgica Tipografia già Cooperativa Viale dell Impero 12 Pavia

Bordeaux chir —Bordeaux chirurgical 11 rue Albert de Mun Bordeaux

Brain —Brain A Journal of Neurology Macmillan & Company Ltd St Martin s St, London W C 2 (American office—60 Fifth Ave New York 11)

Brasil med —Brasil med co Rua Rodrigo Silva 14 Rio de Janeiro

Bristol Med -Chir J —Bristol Medico-Chirurgical Journal J W Arrowsmith Ltd, 11 Quay St Bristol

Brit Dent J —The British Dental Journal 13 Hill St Berkeley Sq London W 1

Brit Heart J —British Heart Journal British Medical Association Tavistock Sq London W C 1

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Brit J Indust Med —British Journal of Industrial Medicine British Medical Association Tavistock Sq London W C 1

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Brit J Ophth —The British Journal of Ophthalmology Geo E Pulman & Sons Ltd 24 Thayer St Marylebone London W 1

Brit J Pharmacol British Journal of Pharmacology and Chemotherapy The British Pharmacological Society British Medical Association Tavistock Square London W C 1

Brit J Phys Med British Journal of Physical Medicine and Industrial Hygiene 4 5 & 6 Bell Yard Temple Bar London W C 2

Brit J Radiol British Journal of Radiology British Institute of Radiology 32 Welbeck St London W 1

Brit J Social Med British Journal of Social Medicine British Medical Association House Tavistock Square London W C 1

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Brit J Urol British Journal of Urology Gaunt House 28 Orchard St Bristol 1

Brit J Ven Dis The British Journal of Venereal Diseases Constable & Co 10 Orange St Leicester Sq London W C 2

Brit M Bull *British Medical Bulletin Medical Department The British Council 3 Hanover St London W 1*

Brit M J British Medical Journal British Medical Association House 19 Tavistock Sq London W C 1

Brooklyn Hosp J The Brooklyn Hospital Journal DeKalb Ave & Ashland Place, Brooklyn N Y

Bruxelles méd Bruxelles médical Revue belge des sciences médico-chirurgicales. Léopold Mayer (Ed) 141 rue Belliard Bruxelles

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Bull Acad Med ,Toronto Bulletin of the Academy of Medicine 13 Queen's Park, Toronto

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Bull Health Organ ,League of Nations —Bulletin of the Health Organisation of the League of Nations Publications Department of the League of Nations Geneva

(American Agent—Columbia University Press 2960 Broadway New York City 27) (Continuation of Quart Bull Health Organ League of Nations)

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Bull Hosp Joint Dis—Bulletin of the Hospital for Joint Diseases, 1919 Madison Ave New York 35

Bull Hyg—Bulletin of Hygiene Bureau of Hygiene & Tropical Diseases Keppel St Gower St London W C 1

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Bull Los Angeles Neurol Soc—Bulletin of the Los Angeles Neurological Society Dr Clarence W Olsen 312 N Boyle Ave Los Angeles

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Bull et mem Soc franç d opht—Bulletins et mémoires de la Société française d ophtalmologie Masson & Cie 120 Boulevard Saint Germain Paris 6°

Bull et mem Soc med d hôp de Paris—Bulletins et mémoires de la Société médicale des hôpitaux de Paris Masson & Cie 120 Boulevard Saint Germain Paris 6°

Bull et mem Soc méd Paris—Bulletins et memoires de la Societé de médecine de Paris Librairie Maloine 27 rue de l École de Médecine Paris

Bull et mem Soc nat de chir—Continued as Mém Acad de chir

Bull Menninger Clin—Bulletin of the Menninger Clinic The Menninger Clinic Topeka

Bull New England M Center—Bulletin of the New England Medical Center 30 Bennett St Boston 11

Bull New York Acad Med—Bulletin of the New York Academy of Medicine 2 E 103rd St, New York 29

Bull New York M Coll Flower & Fifth Ave Hosps—Bulletin New York Medical College Flower and Fifth Avenue Hospitals 1 East 105th St New York 29 (Continuation of New York M Coll & Flower Hosp Bull)

Bull Office Internat d hyg pub—Bulletin de l Office international d hygiène publique 195 Boulevard Saint Germain Paris VII°

Bull Post Grad Comm Med, Univ Sydney—Bulletin of the Post Graduate Committee in Medicine University of Sydney Sydney N S W Australia

Bull Pract Ophth—Bulletin of Practical Ophthalmology Greens Eye Hospital Bush and Octavia Streets San Francisco

Bull sc med Bologna—Bullettino delle scienze mediche Società medica chirurgica Piazza Galvani 1 Bologna

Bull School Med Univ Maryland—Bulletin of the School of Medicine University of Maryland 519 W Lombard St Baltimore (Continuation of Bull Univ Maryland School Med)

Collect.Papers Mayo Clin & Mayo Found Collected Papers of the Mayo Clinic and the Mayo Foundation W. B. Saunders Company W. Washington Sq., Philadelphia 5

Compens Med Compensation Medicine 501 Fifth Ave New York 17

Compt rend Acad d sc Comptes rendus hebdoma laires des séances de l Académie des sciences Gauthier Villars 55 Quai des Grands Augustins Paris 6°

Compt rend.Soc de biol Comptes rendus des séances de la Société de biologie Masson et Cie 120 Boulevard Saint Germain Paris 6°

Confinia neurol Confinia neurologica S Karger Holbeinstrasse 22 Basel

Connecticut M.J The Connecticut State Medical Journal Dr Stanley B Weld 54 Church St Hartford 3 (Continuation of J Connecticut M Soc)

Crón méd.,Lima La crónica méd ca Apartado 2563 Lima

Cultura méd Cultura méd ca Rua Ipiranga 33 Rio de Janeiro

Current Researches in Anesth & Analg See Anesth & Analg

Dallas M J The Dallas Medical Journal 1521 Medical Arts Bldg Dallas Texas

Delaware State M J Delaware State Medical Journal 618 Citizens Bank Bldg Wilmington

Dermatologica Dermatologica S Karger Holbeinstrasse 22 Basel (Continuation of Dermat Ztschr)

Dermosifilografo Il dermosifilografo Via Martiri della Libertà 15 Torino

Deut Militararzt Der deutsche Militärarzt Springer Verlag Linkstrasse 22 24 Berlin, W 9

Deutsche med Wchnschr Deutsche medizinische Wochenschrift Georg Thieme, Rossplatz 12 Leipzig C 1

Deutsche Ztschr f Chir Deutsche Zeitschrift für Chirurgie Springer Verlag Linkstrasse 22 24 Berlin W 9

Deutsches Tuberk -Bl Deutsches Tuberkulose Blatt Sonderbeilage zur Deutschen medizinischen Wochenschrift Georg Thieme Rossplatz 12 Leipzig C 1

Dia méd El día médico Córdoba 2093 Buenos Aires

Diag & trait —Diagnostics & traitements 13 rue Puits-Gaillot Lyon

Digest Neurol & Psychiat ,Inst of Living — Digest of Neurology and Psychiatry The Institute of Living 200 Retreat Ave Hartford 2 Conn (Continuation of Abstr & Trans Inst of Living)

Diplomate —The Diplomate National Board of Medical Examiners 225 S 15th St, Philadelphia 2

Dis of Chest —Diseases of the Chest [including Spanish summaries] 500 N Dearborn St, Chicago 10

Dis Eye,Ear,Nose & Throat —Incorporated in Eye Ear Nose & Throat Monthly

Dis Nerv System Diseases of the Nervous System 500 N Dearborn St Chicago 10

Duodecim —Published in Nord med

East African M.J —The East African Medical Journal East African Standard Ltd Nairobi Kenya Colony (Continuation of Kenya & East African M J)

Edinburgh M J Edinburgh Medical Journal Oliver and Boyd, Tweeddale Court Edinburgh

Encéphale —L encéphale journal de neurologie et de psychiatrie Supplément l'hygiène mentale Gaston Doin & Cie 8 Place de l Odéon, Paris 6°

Endocrinology —Endocrinology Bulletin of the Association for the Study of Internal Secretions Charles C Thomas 301–327 E Lawrence Ave Springfield Ill

Enzymologia —Enzymologia W Junk N Z Voorburgwal 64, Amsterdam (C)

Ergebn.Anat u Entwcklngsgesch—Ergebnisse der Anatomie und Entwicklgeschichte Springer-Verlag OHG Molkerbastei 5, Wien I

Exper Med & Surg—Experimental Medicine and Surgery Brooklyn Medical Inc, 64 E 55th St., New York 22

Experientia.—Experientia Monatsschrift fur das gesamte Gebiet der Naturwissen Verlag Birkhäuser Ag, Elisabethenstrasse 15, Basel 10

Eye,Ear,Nose & Throat Monthly—The Eye Ear, Nose & Throat Monthly, a Pr Journal for the Eye Ear, Nose & Throat Specialist Room 1800 5 N Wabash Chicago 2

Federation Bull—Federation Bulletin The Federation Press 535 N Dearbo Chicago 10

Federation Proc—Federation Proceedings Federation of American Societies for E mental Biology 19 West Chase St Baltimore 1

Finska lak -sallsk handl—Published in Nord med

Fiziol zhur—Fiziologicheskii zhurnal SSSR Vsekhsvyatskoe Baltiskii posel VIEM, Moscow

Folha med.—A folha medica Caixa Postal 2654 Rio de Janeiro

Folia anat.univ conimb—Folia anatomica universitatis conimbrigensis (Propr l Institut d histologie et d embryologie et du Laboratoire d anatomie) Co Portugal

Folia cardiol—Folia cardiologica organo del gruppo cardiologico italiano Agnese, 18 Milano

Folia med—Folia medica Istituto di medicina del lavoro della Università Poli Napoli

Food Research—Food Research Garrard Press Champaign Ill

Fortschr d Neurol ,Psychiat—Fortschritte der Neurologie Psychiatrie und Grenzgebiete Übersichten und Forschungsergebnisse Georg Thieme R 12 Leipzig, C 1

Gac med de Caracas—Gaceta médica de Caracas Organo de la Academia Nac Medicina, Apartado de Correos 804 Caracas

Gac.med españ—Gaceta médica española Apartado 6026 Madrid

Gac.méd de Mexico—Gaceta médica de México Apartado postal 8075 Méxic

Gastroenterologia—Gastroenterologia S Karger Holbeinstrasse 22 Basel (C tion of Arch f Verdauungskr)

Gastroenterology—Gastroenterology Official Journal of the American Gastr logical Association Williams & Wilkins Co Mt Royal and Guilf Baltimore 2

Gaz.clin—Gazeta clinica Publicação medica paulista Rua Maria [illegible] Paulo

Gazz med ital—Gazzetta medica italiana Via Giuseppe Verdi 6 Milan

Gen Pract Clin—General Practice Clinics 1720 M St N W Washington [illegible]

Gen Practitioner—The General Practitioner of Australia and New Zealand [illegible] Rd Elsternwick S 4 Victoria Australia

Geneesk bl u klin en lab v d prakt—Geneeskundige bladen uit kliniek en la voor de praktijk de Erven F Bohn Postgiro 5403 Haarlem [illegible]

Geneesk gids.—Geneeskundige gids Vakblad voor [illegible] Bezuidenhout 9 Den Haag

Geneesk tijdschr v Nederl Indië—Geneeskundig tijdschrift voor [illegible] G Kolff & Co Petjenongan 72 Batavia C Java

Genet Psychol Monogr —Genetic Psychology Monographs The Journal Press, 2 Commercial St Provincetown, Mass

Genetica —Genetica Nederlandsch tijdschrift voor erfelijkheids- en afstammingsleer Martinus Nijhoff 's Gravenhage

Geriatrics Geriatrics Official Journal of the American Geriatrics Society 84 South 10th St Minneapolis 2

Ginecologia La ginecologia Via Martiri della Libertà 15, Torino (Continuation of Boll d Soc piemontese di ostet e ginec)

Gior Accad med Torino Giornale della Accademia di medicina di Torino Torino. (Continuation of Gior d r Accad di med di Torino)

Gior di batteriol e immunol —Giornale di batteriologia e immunologia Ospedale Maria Vittoria Via Cibrario 72 Torino 117

Gior di clin med Giornale di clinica medica Via d Azeglio 24 Parma

Gior ital anest e analg Giornale italiano di anestesia e di analgesia Casella Post 491 Via Martiri della Libertà 15 Torino

Gior ital dermat e sif —Giornale italiano di dermatologia e sifilologia Via Pace 9, Milano

Gior med d Marca trevig —Giornale medico della Marca trevigiana Istituto di Anatomia patologica dell Ospitale civile di Treviso Treviso Italia

Gior med mil -Giornale di medicina militare Ministero della Guerra Roma

Gior di psichiat e di neuropat —Giornale di psichiatria e di neuropatologia Ospedale Psichiatrico Provinciale, Ferrara (Continuation of Gior di psichiat clin e tecn manic)

Gior veneto sc med Giornale veneto di scienze mediche Ospedale civile, Venezia.

Giza Mem Ophthalmic Lab ,Ann Rep See Mem Ophthalmic Lab , Giza Ann Rep

Glasgow M J Glasgow Medical Journal " , Gilmour & Laurence, 2, West Regent St., Glasgow

Grace Hosp Bull —The Grace Hospital Bulletin 4160 John R St , Detroit, Mich

Growth —*Growth A Journal for Studies of Development and Increase* Lankenau Hospital Research Institute Girard & Corinthian Aves , Philadelphia 30

Guthrie Clin Bull The Guthrie Clinic Bulletin Medical and Surgical Staffs of the Guthrie Clinic and the Robert Packer Hospital Sayre Penn

Guy's Hosp Gaz.—Guy's Hospital Gazette London Bridge London, S E. 1

Guy's Hosp Rep Guy's Hospital Reports Guy's Hospital London Bridge London, S E 1

Gynaecologia —Gynaecologia S Karger Holbeinstrasse 22 Basel (Continuation of Monatschr f Geburtsh u Gynäk)

Gynéc et obst —Gynécologie et obstétrique Masson & Cie, 120 Boulevard Saint Germain, Paris 6ᵉ

Haematologica —Haematologica Archivio Casella Postale 149, Pavia

Hahneman Monthly —The Hahnemannian Monthly 235 N 15th St , Philadelphia 2

Harefuah —*Harefuah Journal of the Palestine Jewish Medical Assoc* , P O B 1298 Tel Aviv Palestine

Harofé Haivri See Hebrew M J

Harper Hosp Bull —Harper Hospital Bulletin 3825 Brush St , Detroit 1

Harvey Lect —The Harvey Lectures Delivered Under the Auspices of The Harvey Society of New York Under the Patronage of the New York Academy of Medicine Science Press Queen St & McGovern Ave Lancaster, Pa

Hawaii M J—Hawaii Medical Journal Mabel L Smyth Memorial Bldg, 510 S Beretania St, Honolulu

Hebrew M J—The Hebrew Medical Journal (Harofé Haivri) 983 Park Ave, New York 28

Helvet.med acta—Helvetica medica acta Benno Schwabe & Co, Klosterberg 27 Basel 10

Helvet.paediat.acta—Helvetica paediatrica acta Benno Schwabe & Co, Klosterberg 27, Basel 10

Hemat.Monogr—Hematology Monographs Michael Reese Hospital Dept of Hematology, E 29th & Ellis Chicago, Ill

Hoja tisiol—Hoja tisiológica Casilla de Correo, 2605, Montevideo

Hoppe Seyler's Ztschr f physiol Chem See Ztschr f physiol Chem

Hosp Corps Quart—The Hospital Corps Quarterly The Supplement to the United States Naval Medical Bulletin Superintendent of Documents Government Printing Office, Washington, D C

Hosp Counc Bull—Hospital Council Bulletin Chicago Hospital Council, 105 W Adams St, Chicago 3

Hosp Management—Hospital Management 100 E Ohio St, Chicago

Hosp Progr—Hospital Progress 1402 S Grand Blvd St Louis 4

Hospital, London—The Hospital Official Organ of the British Hospitals Association and of the Incorporated Association of Hospital Officers Secretary I A H O, 12 Grosvenor Crescent London S W 1

Hospital, Rio de Janeiro—O Hospital, Caixa Postal, 2785, Rio de Janeiro

Hospitals—Hospitals The Journal of the American Hospital Association, 18 E Division St, Chicago 10 (Continuation of Bull Am Hosp A)

Hospitalstid—Published in Nord med

Human Biol—Human Biology 1901 E Madison St Baltimore

Human Fertil—Human Fertility Williams & Wilkins Co, Mt Royal and Guilford Aves, Baltimore 2 (Continuation of J Contraception)

Hyg ment.—L'hygiène mentale (Supplément mensuel de l'Encéphale) Gaston Doin & Cie, 8, place de l Odéon Paris 6e

Hygeia—Hygeia 535 N Dearborn St Chicago 10

Hygiea—Published in Nord med

Illinois M J—Illinois Medical Journal 30 N Michigan Ave Chicago

Index neurol y psiquiat—Index de neurología y psiquiatría Esmeralda 909, Buenos Aires

Indian J M Research—Indian Journal of Medical Research Thacker Spink & Co P O Box 54 Calcutta

Indian J Ophth—Indian Journal of Ophthalmology 502 Narayen Peth Poona City, India

Indian J Pediat—Indian Journal of Pediatrics S C Sakar & Sons Ltd, 1/1/1 C College Sq Calcutta

Indian J Surg—Indian Journal of Surgery Sec'y Association of Surgeons of India Binfield, Kilpauk Madras

Indian J Ven Dis—Indian Journal of Venereal Diseases and Dermatology 1 Damodar Mansions, Opera House Tram Terminus Girgaum Bombay 4

Indian M Gaz—Indian Medical Gazette Thacker Spink & Co P O Box 54 Calcutta

Indian M J—The Indian Medical Journal Dr Khan Chand Wohra Treas, Chichawatni Dt Montgomery Punjab

Indian M Rec —Indian Medical Record 14 Puranchand Nahar Ave, Calcutta, London Office Effingham House Arundel Street Strand W C 2

Indian M Research Mem Indian Medical Research Memoirs Supplementary Series to Indian Journal of Medical Research Thacker Spink & Co, P O Box 54 Calcutta

Indian Physician The Indian Physician New Queen's Rd Bombay 4

Individ Psychol Bull Individual Psychology Bulletin 3826 N Janssen Ave, Chicago 13

Indust & Engin Chem (Indust Ed) Industrial and Engineering Chemistry (Industrial Edition) 1155 16th St N W Washington D C

Indust Med Industrial Medicine including Industrial Hygiene Section 605 N Michigan Ave Chicago

Inform med ,Genova L'informatore medico Sezione clinica e scientifica Casella Postale 1512 Genova

Inform méd ,Habana Informaciones médicas Reina 310 Habana

Infortun e traumatol lavoro Infortunistica e traumatologia del lavoro Casella Postale 491 Torino

Infortuni e mal profess Infortuni e malattie professionali Piazza Cavour 3 Roma

Inst M Research,Federated Malay States,Studies See Stud Inst M Research Federated Malay States

Internat A M Museums Bull See J Tech Methods

Internat Abstr Surg See Surg Gynec & Obst

Internat J Leprosy International Journal of Leprosy Temporary Office Dept of Hygiene School of Medicine Western Reserve University Cleveland 6 Ohio

Internat J Psycho-Analysis International Journal of Psycho-Analysis Baillière Tindall & Cox 7 8 Henrietta St Covent Garden London W C 2

Internat M Digest International Medical Digest W F Prior Co Inc Hagerstown Maryland

Irish J M Sc Irish Journal of Medical Science Cahill & Co Ltd Parkgate Printing Works Dublin (American agent Hafner Publishing Co Inc 31 33 E 10th St New York 3)

J A Am M Coll Journal of the Association of American Medical Colleges 5 S Wabash Ave Chicago

J A M A Journal of the American Medical Association 535 N Dearborn St Chicago 10

J Abnorm & Social Psychol Journal of Abnormal and Social Psychology 374 Broadway Albany N Y Northwestern University Evanston Ill

J Allergy —The Journal of Allergy C V Mosby Co 3207 Washington Blvd St Louis 3

J Am A M Rec Lib —Journal of the American Association of Medical Record Librarians *161 W Harrison St Chicago 5 (Continuation of Bull Am A M Rec Lib)*

J Am Chem Soc Journal of the American Chemical Society 1155 16th St, N W, *Washington 6 D C*

J Am Coll Dentists Journal of the American College of Dentists 350 Post St, San Francisco 8

J Am Dent A —Journal of the American Dental Association 222 E Superior St, Chicago 11

J Am Dietet A —Journal of the American Dietetic Association 620 N Michigan Ave, Chicago

J Am Inst Homeop—Journal of the American Institute of Homeopathy 1601 Chestnut St Philadelphia 3

J Am M Women's A—Journal of the American Medical Women s Association Apt 406 3300 West End Ave Nashville 5 Tenn

J Am Pharm A (Scient Ed)—Journal of the American Pharmaceutical Association (Scientific Edition) Robert P Fischelis Sec y 2215 Constitution Ave N W, Washington 7 D C

J Am Vet M A—Journal of the American Veterinary Medical Association 600 S Michigan Ave, Chicago 5

J Anat—Journal of Anatomy Cambridge University Press Bentley House 200 Euston Rd London N W 1 (American agent—University of Chicago Press 58th St and Ellis Ave Chicago)

J Arkansas M Soc—Journal of the Arkansas Medical Society 610 First National Bank Bldg Fort Smith

J Aviation Med—The Journal of Aviation Medicine The Bruce Publishing Co 2642 University Ave St Paul

J Bact—Journal of Bacteriology Williams & Wilkins Co Mt Royal and Guilford Aves Baltimore 2

J belge de neurol et de psychiat—Journal belge de neurologie et de psychiatrie Avenue de la Ramee, 10 Uccle Bruxelles

J belge d urol—Journal belge d urologie F van den Branden 10 rue des Mélèzes Ixelles Bruxelles

J Biol Chem—Journal of Biological Chemistry American Society of Biological Chemists Inc Williams & Wilkins Co Mt Royal and Guilford Aves Baltimore 2

J Biol Photographic A—The Journal of the Biological Photographic Association Leo C Massopust Ed Marquette University School of Medicine Milwaukee 3

J Bone & Joint Surg—The Journal of Bone and Joint Surgery The Official Publication of The American Orthopaedic Association The British Orthopaedic Association The American Academy of Orthopaedic Surgeons The Australian Orthopaedic Association The Canadian Orthopaedic Association 8 The Fenway Boston 15 45 Lincoln s Inn Fields London W C 2

J Bowman Gray School Med—The Journal of the Bowman Gray School of Medicine of Wake Forest College Winston Salem N C

J Cell & Comp Physiol—Journal of Cellular and Comparative Physiology The Wistar Institute 36th St and Woodland Ave Philadelphia 4

J Ceylon Br, Brit M A—The Journal of the Ceylon Branch of the British Medical Association Colombo

J Child Psychiat—The Journal of Child Psychiatry 30 W 58th St New York 19

J de chir—Journal de chirurgie Masson & Cie 120 Boulevard Saint Germain Paris 6[e]

J Christian M A—Journal of the Christian Medical Association of India Burma and Ceylon The Wesley Press and Publishing House Mysore City India

J d clin—Jornal dos clinicos Caixa Postal 1554 Rio de Janeiro

J Clin Endocrinol—The Journal of Clinical Endocrinology Charles C Thomas 301–327 E Lawrence Ave Springfield Ill

J Clin Investigation—Journal of Clinical Investigation Charles A Janeway Treasurer Children s Hospital 300 Longwood Ave Boston

J Clin Psychopath—Journal of Clinical Psychopathology and Psychotherapy Medical Journal Press P O Box 631 Monticello N Y (Continuation of J Crim Psychopath)

J Colloid Sc—Journal of Colloid Science 125 East 23rd St New York 10

J Comp Neurol —Journal of Comparative Neurology Wistar Institute, 36th St and Woodland Ave, Philadelphia 4

J Comp Path & Therap —The Journal of Comparative Pathology and Therapeutics H R Grubb Ltd Poplar Walk Croydon, Surrey

J Comp Psychol Journal of Comparative Psychology Williams & Wilkins Co Mt Royal and Guilford Aves Baltimore 2

J Connecticut M Soc —Continued as Connecticut M J

J Contraception —Continued as Human Fertil

J Crim Psychopath —Continued as J Clin Psychopath

J Dent Research Journal of Dental Research 1121 Michigan St Indianapolis

J Egyptian M A Continued as J Roy Egyptian M A

J Endocrinol —The Journal of Endocrinology Cambridge University Press 196 Euston Rd London N W 1

J Exper Biol —The Journal of Experimental Biology Cambridge University Press Bentley House 200 Euston Rd London N W 1 (American agent—University of Chicago Press 58th St and Ellis Ave Chicago) (Continuation of Brit J Exper Biol)

J Exper Med Journal of Experimental Medicine, Rockefeller Institute for Medical Research York Ave and 66th St New York 21

J Exper Psychol Journal of Experimental Psychology American Psychological Association Inc Northwestern University 1822 Sherman Ave Evanston Ill

J Exper Zool —Journal of Experimental Zoology Wistar Institute 36th St and Woodland Ave Philadelphia 4

J Florida M A Journal of the Florida Medical Association Box 1018 Jacksonville I

J franç méd et chir thorac —Journal français de médecine et chirurgie thoracique Gaston Doin & Cie 8 place de l Odeon Paris 6e (Continuation of Arch méd-chir de l app respir)

J Franklin Inst —Journal of the Franklin Institute Devoted to Science and the Mechanic Arts The Franklin Institute Benjamin Franklin Parkway at 20th St, Philadelphia 3

J Gen Physiol Journal of General Physiology Rockefeller Institute for Medical Research York Ave and 66th St New York 21

J Gen Psychol —The Journal of General Psychology 2 Commercial St, Provincetown Mass

J Genet Psychol —The Pedagogical Seminary and Journal of Genetic Psychology 2 Commercial St Provincetown Mass

J Genetics Journal of Genetics Cambridge University Press Bentley House, 200 Euston Rd London N W 1 (American agent—University of Chicago Press 58th St and Ellis Ave Chicago)

J Gerontol —Journal of Gerontology Published for the Gerontological Society Inc by Charles C Thomas 301–327 East Lawrence Ave, Springfield, Ill [Includes Non Technical Supplement]

J Health & Phys Educ —Journal of Health and Physical Education American Association for Health Physical Education and Recreation 1201 16th St, N W, Washington, D C (Continuation of Am Phys Educ Rev)

J Helminthol —Journal of Helminthology The Institute of Agricultural Parasitology, Winches Farm Drive, Hatfield Road St Albans, England

J Hemat • See Blood

J Hered —Journal of Heredity The American Genetic Association 1507 M N W Washington 5 D C

J Hist Med & Allied Sc —Journal of the History of Medicine and Allied Sciences Henry Schuman, 20 E 70th St, New York 21

J Home Econ —Journal of Home Economics American Home Economics Association, 620 Mills Bldg, Washington, D C

J de l'Hôtel-Dieu de Montréal —Le journal de l Hôtel Dieu de Montréal Montréal.

J Hyg —Journal of Hygiene Cambridge University Press, Bentley House, 200 Euston Rd, London, N W 1 (American agent—University of Chicago Press, 58th St and Ellis Ave, Chicago)

J Immunol —Journal of Immunology, Virus Research and Experimental Chemotherapy Williams & Wilkins Co, Mt Royal and Guilford Aves, Baltimore 2

J Indian M A —Journal of the Indian Medical Association 23, Hindusthan Bldgs, Corporation Place, Calcutta

J Indiana M A —Journal of the Indiana State Medical Association 1017 Hume Mansur Bldg, Indianapolis 4

J Indust Hyg & Toxicol —Journal of Industrial Hygiene and Toxicology with Abstract of Literature Williams & Wilkins Co, Mt Royal and Guilford Aves, Baltimore 2

J Infect Dis —Journal of Infectious Diseases University of Chicago Press, 5750 Ellis Ave, Chicago

J internat chir —Journal international de chirurgie Masson & Cie, 120, Boulevard Saint Germain, Paris 6e

J Internat Coll Surgeons —The Journal of the International College of Surgeons Dr Max Thorek, Editor, 850 W Irving Park, Chicago (Continuation of Tr Internat Coll Surgeons)

J Invest Dermat —The Journal of Investigative Dermatology Williams & Wilkins Co, Mt Royal and Guilford Aves, Baltimore 2

J Iowa M Soc —Journal of Iowa State Medical Society, 505 Bankers Trust Bldg, Des Moines 9

J Kansas M Soc —Journal of Kansas Medical Society 512 New England Bldg, Fifth & Kansas Ave, Topeka

J Lab & Clin Med —Journal of Laboratory and Clinical Medicine C V Mosby Co, 3207 Washington Blvd, St Louis 3

J Laryng & Otol —Journal of Laryngology and Otology Headley Brothers, 109 Kingsway, London, W C 2 (American agent—Hafner Publishing Co, Inc, 31 33 E 10th St, New York 3)

J Louisiana State Univ School Med —Journal of the Louisiana State University School of Medicine New Orleans

J M A Alabama —Journal of the Medical Association of the State of Alabama 519 Dexter Ave, Montgomery

J M A Eire —Journal of the Medical Association of Eire, 270 N Circular Road, Dublin

J M A Georgia —Journal of Medical Association of Georgia 478 Peachtree St, N E, Atlanta

J M Soc New Jersey —Journal of the Medical Society of New Jersey 315 W State St, Trenton 8

J Maine M A —Journal of the Maine Medical Association Congress Bldg, 142 High St, Portland 3, Maine (Continuation of Maine M J)

J Med —Continued as Cincinnati J Med

J de méd de Bordeaux —Journal de médecine de Bordeaux et du Sud-Ouest 6, place Saint Christoly, Bordeaux

J de méd et chir prat —Journal de médecine et de chirurgie pratiques Rue de Nesles, 8, Paris 6e

J méd franç —*Le Journal médical français* A Poinat, 21, rue Cassette, Paris 6° (Temporarily suspended)

J de méd de Lyon —*Le Journal de médecine de Lyon* Dr Paul Mal...t (Ad) 52 rue Victor Hugo, Lyon

J de méd de Paris Journal de médecine de Paris 53 rue de la Procession 15°

J Ment Sc Journal of Mental Science J & A Churchill 104 Gloucester Place Portman Sq, London W 1

J Michigan M Soc —Journal of Michigan State Medical Society 2020 Olds Tower Bldg Lansing 8

J Missouri M A —Journal of Missouri State Medical Association 623 Missouri Bldg St Louis

J Morphol Journal of Morphology Wistar Institute 36th St and Woodland Ave Philadelphia 4

J Mt Sinai Hosp Journal of the Mount Sinai Hospital 1 E 100th St, New York

J Nat Cancer Inst Journal of the National Cancer Institute Federal Security Agency, U S Public Health Service National Institute of Health National Cancer Institute Superintendent of Documents Government Printing Office Washington 25 D C

J Nat M A Journal of the National Medical Association 30 Rockefeller Plaza New York

J Nat Malaria Soc —The Journal of the National Malaria Society P O Box 997 Tallahassee Florida

J Nerv & Ment Dis —Journal of Nervous and Mental Disease 70 Pine St New York 5

J Neurol, Neurosurg & Psychiat Journal of Neurology Neurosurgery and Psychiatry British Medical Association B M A House Tavistock Sq, London W C 1 (Continuation of J Neurol & Psychiat)

J Neuropath & Exper Neurol Journal of Neuropathology and Experimental Neurology Mt Royal and Guilford Aves Baltimore 2

J Neurophysiol —Journal of Neurophysiology Charles C Thomas 301 327 E Lawrence Ave, Springfield Ill

J Neurosurg —Journal of Neurosurgery Charles C Thomas 301–327 E Lawrence Ave Springfield, Ill

J Nutrition —The Journal of Nutrition Wistar Institute of Anatomy and Biology, 36th St and Woodland Ave Philadelphia 4

J Obst & Gynaec —Journal of Obstetrics and Gynaecology The Official Organ of the Obstetrics & Gynaecological Society of Northern India 39 Chamberlain Rd Lahore (Continuation of J Obst & Gynaec Soc North India)

J Obst & Gynaec Brit Emp —Journal of Obstetrics and Gynaecology of the British Empire Sherratt & Son the Saint Ann's Press, Park Road Timperley, Cheshire

J d obst et de gynéc prat —Journal d obstétrique et de gynécologie pratiques 18 Boulevard Vauban Lille (Temporarily suspended)

J Oklahoma M A —Journal of Oklahoma State Medical Association 210 Plaza Court Oklahoma City 3

J Omaha Mid-West Clin Soc —The Journal of the Omaha Mid West Clinical Society 1036 Medical Arts Bldg Omaha

J Optic Soc America —Journal of the Optical Society of America American Institute of Physics 57 E 55th St New York 22

J Oral Surg —Journal of Oral Surgery American Dental Association, 222 E Superior St, Chicago 11

J Palestine Arab M A —The Journal of the Palestine Arab Medical Association Mamilla Road No 36 Jerusalem Palestine

J Parasitol —Journal of Parasitology New York University University Heights New York 53

J Path & Bact —Journal of Pathology and Bacteriology Oliver & Boyd Tweeddale Court High St Edinburgh 1

J Pediat —The Journal of Pediatrics C V Mosby Co 3207 Washington Blvd St Louis 3

J Pharmacol & Exper Therap —Journal of Pharmacology and Experimental Therapeutics Williams & Wilkins Co Mt Royal and Guilford Aves, Baltimore 2

J Philippine M A —The Journal of the Philippine Medical Association 547 Herran St Manila

J Physiol —Journal of Physiology Cambridge University Press Bentley House 200 Euston Rd London, N W 1 (American Agent—University of Chicago Press 58th St and Ellis Ave, Chicago 37)

J de physiol et de path gen —Journal de physiologie et de pathologie générale Masson & Cie, 120 Boulevard Saint Germain Paris 6ᵉ

J d praticiens See Rev gén de clin et de thérap

J de psychiat inf See Ztschr f Kinderpsych at

J Psychol —The Journal of Psychology 2 Commercial St Provincetown Mass

J de psychol norm et path —Journal de psychologie normale et pathologique Presses Universitaires de France 108 Boulevard Saint Germain Paris 6ᵉ

J de radiol et d'electrol —Journal de radiologie et d électrologie Masson & Cie 120 Boulevard Saint-Germain Paris 6ᵉ

J Roy Army M Corps —Journal of the Royal Army Medical Corps A M D 2 War Office Whitehall London S W 1

J Roy Egyptian M A Journal of the Royal Egyptian Medical Association 42 Sharia Kasr El Aini Cairo (Continuation of J Egyptian M A)

J Roy Inst Pub Health & Hyg —Journal of the Royal Institute of Public Health and Hygiene Incorporating Journal of State Medicine 28 Portland Place London W 1

J Roy Nav M Serv —Journal of the Royal Naval Medical Service Royal Naval Hosp Barrow Gurney near Bristol England

J Roy San Inst —Journal of the Royal Sanitary Institute 90 Buckingham Palace Road London S W 1

J School Health —The Journal of School Health American School Health Association 3335 Main St Buffalo 14 N Y

J Social Hyg —Journal of Social Hygiene American Social Hygiene Association 1790 Broadway New York 19

J Speech Disorders —Journal of Speech Disorders American Speech Correction Association Special Education Clinics Indiana State Teachers College Terre Haute Ind

J State Med —Continued as J Roy Inst Pub Health & Hyg

J Tech Methods —Journal of Technical Methods and Bulletin of the International Association of Medical Museums Robert A Moore Ed Washington University School of Medicine Euclid Ave & Kingshighway St Louis

J Tennessee M A —Journal of Tennessee State Medical Association 508 Doctors Bldg Nashville

J Thoracic Surg —The Journal of Thoracic Surgery C. V. Mosby Company, 3207 Washington Blvd , St Louis 3

J Trop Med —Journal of Tropical Medicine and Hygiene John Bale Medical Publications Ltd 83 91 Great Titchfield St London W 1

J Urol —The Journal of Urology Williams & Wilkins Co , Mt Royal and Guilford Aves , Baltimore 2

J d'urol Journal d urologie médicale et chirurgicale Masson & Cie, 120 Boulevard Saint Germain Paris 6e

J Ven Dis Inform —The Journal of Venereal Disease Information Superintendent of Documents Government Printing Office Washington 25, D C. (Continuation of Ven Dis Inform)

Jamaica M Rev —The Jamaica Medical Review 93 Church St , Kingston, Jamaica

Journal Lancet Journal Lancet Representing the Medical Profession of Minnesota, North Dakota South Dakota and Montana 507 Essex Bldg , 84 S 10th St , Minneapolis 2

Kentucky M J Kentucky Medical Journal 519 10th St Bowling Green

Khirurgiya Khirurgiya Orlikov per 3 Medgiz Moskva

Klin med Klinicheskaya meditsina Orlikov per 3 Medgiz Moskva

Klin Wchnschr Klinische Wochenschrift Springer Verlag Neuenheimer Landstrasse 24 Heidelberg

Kuba Continued as Rev Kuba

Lahey Clin Bull The Lahey Clinic Bulletin 605 Commonwealth Ave , Boston 15

Lancet Lancet 7 Adam St Adelphi London W C 2 Oxford University Press (American Branch) 114 Fifth Ave New York 11

Laryngoscope Laryngoscope 640 S Kingshighway, St. Louis 10

Lattante Il lattante Via S Chiara 6 Parma

Laval méd. Laval médical Faculté de médecine Université Laval, Québec. (Continuation of Bull Soc méd d hôp Universitaires de Québec)

Leech —The Leech The Official Journal of the Students' Medical Council, University of the Witwatersrand Medical School Johannesburg

Lék listy Lékařské listy časopis lékařských spolků a žup moravských Staroměnská ulice číslo 19 21 Brno Czechoslovakia

Leprosy Rev Leprosy Review The British Empire Leprosy Relief Association 25 Kidderpore Ave London N W 3

Lisboa méd Lisboa médica jornal mensal de medicina e cirurgia Hospital Escolar de Santa Marta Lisboa

Liverpool Med -Chir J —Liverpool Medico-Chirurgical Journal Medical Institution 114 Mt Pleasant Liverpool 3

Lotta contro tuberc —Lotta contro la tubercolosi Via Nazionale, 200, Roma

Lyon chir —Lyon chirurgical Masson & Cie, 120 Boulevard Saint Germain, Paris 6e

Lyon méd —Lyon médical 12 rue de la Barre, Lyon

M Ann District of Columbia —Medical Annals of the District of Columbia, 1718 M St N W Washington, D C

M Arts & Sc —Medical Arts and Sciences A Scientific Journal of the College of Medical Evangelists Review and Herald Publishing Assoc., Takoma Park, Washington 12 D C

M Bull ,Bombay —The Medical Bulletin 'Back Bay View,' Opp Charni Road Gardens New Queen's Road, Bombay 4

M Clin North America—The Medical Clinics of North America W B Saunders Co, W Washington Sq, Philadelphia 5

M J Australia—Medical Journal of Australia Seamer St Glebe, Sydney, N S W

M Officer—The Medical Officer Whitefriars House 72/78, Fleet St, London, E C 4

M Press—The Medical Press 8, Henrietta St, Covent Garden London W C 2

M Radiog & Photog—Medical Radiography and Photography Eastman Kodak Co Rochester 4 N Y (Continuation of Radiog & Clin Photog)

M Rec—Medical Record 215 4th Ave New York 3

M Rec & Ann—The Medical Record and Annals 1304 Walker Ave Houston Tex

M Statist Bull, Sel Serv Syst—Medical Statistics Bulletin Selective Service System National Headquarters Selective Service System Washington D C

M Times, New York—Medical Times The Journal of the American Medical Profession 95 Nassau St New York 7 (Continuation of M Times & Long Island M J)

M Woman's J—Medical Woman's Journal 528 Walnut St Cincinnati 2 Ohio

Maandschr v kindergeneesk—Maandschrift voor kindergeneeskunde E Gorter Rijnsburgerweg 161, Leiden

McGill M J—McGill Medical Journal The Official Publication of the McGill Medical Society Medical Bldg McGill University Montreal

Manitoba M Rev—The Manitoba Medical Review 102 Medical Arts Bldg Winnipeg Canada (Continuation of Manitoba M A Rev)

Manpower—Manpower (Volkskragte) A Bi Annual Scientific Journal Devoted to Man power Research Librarian Dept of Union Education Pretoria Union of South Africa

Marquette M Rev—The Marquette Medical Review Marquette University School of Medicine 561 N 15th St Milwaukee 3

Med cir farm—Medicina-cirurgia farmacia Caixa Postal 2923 Rio de Janeiro (Continuation of Med cir pharm)

Med cir pharm—Continued as Med cir farm.

Med clin, Barcelona—Medicina clínica Organo de la Facultad de medicina hospitales y sociedades médicas de Barcelona E Granados 121 Barcelona

Med colon, Madrid—La medicina colonial Organo de informacion del Instituto espanol de medicina colonial (patrocinada por la dirección general de Marruecos y colonias) Av del Generalisimo 5 Madrid

Med depor y trab—Medicina del deporte y del trabajo Arenales 981 Buenos Aires

Med españ—Medicina espanola G V Fernando el Católico 27 Pral Valencia

Med internaz—La medicina internazionale Rivista di medicina chirurgia e farmacologia scientifica e letteraria Via G Prina N 7 Milano

Med Klin—Medizinische Klinik Urban & Schwarzenberg Friedrichstrasse 105 B Berlin N W 7

Med d lavoro—La medicina del lavoro Via S Barnaba 8 Milano 114

Med rev, Bergen—Published in Nord med

Med sper, Arch ital—Medicina sperimentale Archivio italiano Corso Raffaello 30 Torino (Continuation of Arch ital di med sper)

Med sper Arch ital, Monografie—(Listed under Books)

Med Today & Tomorrow—Medicine Today and Tomorrow 176 Kew Rd Richmond Surrey

Méd trop—Médecine tropicale Revue du Corps de santé colonial Ecole d application du Service de santé des troupes coloniales Marseille

Med zhur—Medichniy zhurnal Kiev Ukraine

Médecine La médecine Including Supplément 1 rue Cassini, Paris 14° (Temporarily suspended)

Médica, Matanzas Médica Organo oficial de la Sociedad de medicina y cirugía de Matanzas Byrne 85 Matanzas Cuba

Medicina, Buenos Aires Medicina Buenos Aires Salta 1043 Buenos Aires

Medicina, Madrid Medicina Revista mensual de ciencias médicas Ayala, 27 (moderno) Madrid

Medicina, México Medicina Revista mexicana Av Yucatán 29 México D F

Medicine —Medicine Analytical Reviews of General Medicine Neurology and Pediatrics Williams & Wilkins Co Mt Royal and Guilford Aves, Baltimore 2

Mem Acad de chir Mémoires de l Académie de chirurgie Masson & Cie 120 Boulevard Saint Germain Paris 6° (Continuation of Bull et mém Soc nat de chir)

Mem Acad roy méd Belgique Mémoires Académie royale de médecine de Belgique Imprimerie médicale et scientifique 34 rue Botanique Bruxelles

Mem Inst Butantan Memorias do Instituto Butantan With English abstracts] Caixa Postal 65 São Paulo

Mem Inst Oswaldo Cruz Memorias do Instituto Oswaldo Cruz Caixa postal 926 Rio de Janeiro

Mem Ophthalmic Lab, Giza, Rep Report of the Memorial Ophthalmic Laboratory Giza Schindler s Press Cairo

Mém Soc franç d hist méd Mémoires de la Société française d histoire de la médecine et de ses filiales 66 Boulevard Raspail Paris 6° (Continuation of Bull Soc franç d hist de la méd)

Memphis M J Memphis Medical Journal 1024 Madison Ave Memphis Tenn

Ment Health Mental Health 24 Buckingham Palace Road London S W 1 (Continuation of Ment Welfare)

Ment Hyg Mental Hygiene National Committee for Mental Hygiene Inc 372 374 Broadway Albany N Y

Middlesex Hosp J The Middlesex Hospital Journal Middlesex Hospital Mortimer St London W 1

Mil Surgeon Military Surgeon 7th and Independence Ave S W Washington 25 D C

Milbank Mem Fund Quart The Milbank Memorial Fund Quarterly 40 Wall St New York 5

Minerva med Minerva medica Casella Postale 491 Torino

Minnesota Med Minnesota Medicine 2642 University Ave St Paul 4

Mision estud pat reg argent See Univ Buenos Aires Misión estud pat reg argent

Mississippi Doctor The Mississippi Doctor Booneville Miss

Mississippi Valley M J Mississippi Valley Medical Journal (Incorporating the Radiologic Review) P O Drawer 110 Quincy Ill (Continuation of Radiol Rev & Mississippi Valley M J)

Mitt a d Geb d Lebensmittelunt u Hyg —Mitteilungen aus dem Gebiete der Lebensmitteluntersuchung und Hygiene (Travaux de chimie alimentaire et d hygiène) Zimmermann & Cie Bern

Mod Concepts Cardiovas Dis —Modern Concepts of Cardiovascular Disease American Heart Association 1790 Broadway at 58th St New York 19

Mod Hosp Modern Hospital 919 N Michigan Ave Chicago 11

Monatschr f Geburtsh u Gynak —Continued as Gynaecologia

Monatschr f Krebsbekampf —Monatsschrift für Krebsbekämpfung J F Lehmanns Verlag Paul Heysestrasse 26, München 15

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Monatschr f Unfallh—Monatsschrift für Unfallheilkunde und Versicherungsmedizin Springer Verlag OHG, Mölkerbastei 5 Wien I

Monde med, Paris—Le monde médical Revista internacional de medicina y terapéutica (Spanish edition) Calle Balmes 209–211 Barcelona Casilla 8 Sucursal 5 (Caballito) Buenos Aires

Month Bull Min Health & Emerg Pub Health Lab Serv Monthly Bulletin of the Ministry of Health and the Emergency Public Health Laboratory Service Directed by the Medical Research Council London

Month Rev, New York State Dept of Labor—Monthly Review of the Division of Industrial Hygiene & Safety Standards New York State Department of Labor 80 Centre St New York 13

Munchen med Wchnschr—Munchener medizinische Wochenschrift J F Lehmanns Verlag Paul Heysestrasse 26 München 15

Nat Inst Health Bull—National Institute of Health Bulletin (Continuation of Hygiene Laboratory Bulletin Series) Federal Security Agency U S Public Health Service Washington D C (Listed under Books)

Nat Tuberc A Tr—National Tuberculosis Association Transactions 1790 Broadway New York 19

Nature London—Nature weekly illustrated journal of science Macmillan & Co Ltd St Martin s St London W C 2

Nebraska M J—Nebraska State Medical Journal Nebraska State Medical Association 416 Federal Securities Bldg Lincoln Neb

Nederl tijdschr v geneesk—Nederlandsch tijdschrift voor geneeskunde Jan Luykenstraat 5 Amsterdam Zuid

Nederl tijdschr verlosk en gynaec—Nederlandsch tijdschrift voor verloskunde en gynaecologie de Erven F Bohn Frankestraat 42 Haarlem Netherlands

Nerv Child—The Nervous Child Child Care Publications Mt Royal and Guilford Aves Baltimore 2

Nervenarzt—Der Nervenarzt Springer Verlag OHG Molkerbastei 5 Wien I

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Nevropat i psikhiat—Nevropatologiya i psikhiatriya Orlikov per 3 Moskva

New England J Med—New England Journal of Medicine Published by the Massachusetts Medical Society 8 The Fenway Boston 15 (Continuation of Boston M & S J)

New Orleans M & S J—New Orleans Medical and Surgical Journal 1430 Tulane Ave New Orleans 13

New York M Coll & Flower Hosp Bull—Continued as Bull New York M Coll Flower & Fifth Ave Hosps

New York Med—New York Medicine The Official Publication of the Medical Society of the County of New York 2 East 103rd St New York 29

New York State J Med—New York State Journal of Medicine 292 Madison Ave New York 17

New Zealand M J—The New Zealand Medical Journal Box 156 Wellington N Z

Newcastle M J—The Newcastle Medical Journal Andrew Reid & Co Ltd Newcastle upon Tyne England

Nord hyg tidskr—Nordisk hygienisk tidskrift Ejnar Munksgaards Boghandel Nørregade 6 København K

Nord med—Nordisk medicin (Including Hospitalstidende, Finska läkaresällskapets handlingar, Duodecim, Norsk magasin for lægevidenskapen, Medicinsk revue, Hygiea, Svenska läkaresällskapets förhandlingar, Nordisk medicinsk tidskrift.) Våpnargatan 6, Stockholm

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North New York M Ann Continued as North New York M J

North New York M J Northern New York Medical Journal 723 Washington St, Watertown N Y (Continuation of North New York M Ann)

Northwest Med Northwest Medicine Published by the State Medical Associations of Oregon Washington Idaho and Alaska 225 Cobb Bldg, Seattle 1, Wash

Nourrisson Le nourrisson Revue d hygiène et de pathologie de la première enfance J B Baillière et Fils 19 rue Hautefeuille Paris 6ᵉ

Nova Scotia M Bull The Nova Scotia Medical Bulletin Official Organ of the Medical Society of Nova Scotia Canadian Medical Association Nova Scotia Division The Imperial Publishing Co Ltd Halifax

Nutrition Abstr & Rev Nutrition Abstracts and Reviews The Imperial Bureau of Animal Nutrition Reid Library Rowett Institute Bucksburn Aberdeen Scotland

Nutrition Rev Nutrition Reviews Nutrition Foundation Inc, Chrysler Bldg, New York 17

Obst y ginec latino-am Obstetricia y ginecología latino-americanas Calle José E Uriburu 1578 Buenos Aires

Obst & Gynec Surv Obstetrical and Gynecological Survey Williams & Wilkins Co., Mount Royal and Guilford Aves Baltimore 2

Occup Med Occupational Medicine American Medical Association 535 N Dearborn St Chicago 10

Occup Therapy Occupational Therapy and Rehabilitation Williams & Wilkins Co, Mt Royal and Guilford Aves Baltimore 2

Oftal zhur—Oftalmologicheskiy zhurnal Proletarskiy Bulvar 49 51 Odessa

Ohio State M J Ohio State Medical Journal 79 E State St, Columbus 15

Omnia med—Omnia medica Via S Michele degli Scalzi 59, Pisa

Ophth ibero am—Ophthalmologia ibero americana Calle Florida 229, Buenos Aires [With English translations]

Ophth Lit Ophthalmic Literature 24 27 Thayer St, London W 1

Ophthalmologica Ophthalmologica S Karger Holbeinstrasse 22 Basel (Continuation of Ztschr f Augenh)

Orvosok lapja Orvosok lapja Nádor utca 32 Budapest 5

Oto-rhino-laryng internat L oto-rhino-laryngologie internationale Librairie Arnette, 2 rue Casimir Delavigne Paris

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Papers & Disc Ann Cong M Educ—Papers and Discussions Presented at the Annual Congress on Medical Education and Licensure American Medical Association, 535 N Dearborn St Chicago 10 (Continuation of Proc Ann Cong M Educ)

Parasitology—Parasitology Cambridge University Press, Bentley House 200 Euston Rd London, N W 1 (American agent—University of Chicago Press 58th St and Ellis Ave Chicago)

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Passow-Schaefer Beitr z prakt u theoret Hals-,Nasen- u Ohrenh See Pract oto-rhino laryng

Pasteur —Pasteur Revista mensual de medicina Organo oficial de la Asociación médica franco-mexicana Apartado Postal 2813 México, D F

Pathologica.—Pathologica, rivista mensile Casella Postale N 884 Genova

Pedagog Semin.& J Genet.Psychol See J Genet Psychol

Pediat ,akush i ginek —Pediatriya akusherstvo i ginekologiya Reytarska No 22, Kiev

Pediat Americas —Pediatría de las Américas Ponciano Arriaga 6–2, México, D F

Pediat med prat —La pediatria del medico pratico Via Martiri della Libertà, n 15 Torino

Pediat prát ,São Paulo —Pediatría prática Revista bimestral de clinica infantil e puericultura Caixa Postal 2026, São Paulo

Pediat e puericult ,Bahia —Pediatria e puericultura Instituto Arnaldo B Marques Avenida Joana Angelica, Bahia

Pediatria —La pediatria Rivista mensile di medicina e di chirurgia dell infanzia S Andrea delle Dame, 4, Napoli

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Pennsylvania M J —Pennsylvania Medical Journal 230 State St , Harrisburg

Permanente Found M Bull —Permanente Foundation Medical Bulletin 280 W Mac Arthur Blvd , Oakland Calif

Pfluger's Arch f d ges Physiol See Arch f d ges Physiol

Philippine J Surg —Philippine Journal of Surgery Philippine General Hospital, Manila, Philippines

Physiol Rev —Physiological Reviews American Physiological Society Secretary of Publications, 19 W Chase St , Baltimore 1

Physiol Zool —Physiological Zoology University of Chicago Press, 58th St and Ellis Ave , Chicago

Physiotherapy Rev —The Physiotherapy Review American Physiotherapy Association 720 N Michigan Ave , Chicago 11

Plast & Reconstruct Surg —Plastic and Reconstructive Surgery The Williams & Wilkins Co , Mount Royal & Guilford Aves Baltimore 2 Md

Policlinico (sez chir)—Il Policlinico (sezione chirurg ca) **(sez med)**—Il Policlinico (sezione med ca) **(sez prat)**—Il Policlinico (sezione pratica) Via Sistina N 14 Roma

Polski tygodnik lek —Polski tygodnik lekarski Ul Chocimska 24, Warszawa

Portland Clin Bull —The Portland Clinic Bulletin 1216 S W Yamhill St Portland 5 Ore

Portugal med —Portugal médico Rua Cândido dos Reis 47 Pôrto Portugal

Post Grad M J —The Post Graduate Medical Journal 1, Wimpole St London W 1

Postgrad Med —Postgraduate Medicine Official Journal of the Interstate Postgraduate Medical Association 512 Essex Bldg Minneapolis 2 (Continuation of Proc Interst Postgrad M A North America)

Prensa med argent —La prensa médica argentina Junín 845 Buenos Aires

Prensa med mex —La prensa médica mexicana Queretaro 97, México, D F

Prescriber —Prescriber 3 Howe St Edinburgh 3

Nord med —Nordisk medicin [Including Hospitalstidende Fi handlingar Duodecim Norsk magasin for lægevidensk Hygiea Svenska läkaresällskapets förhandlingar, Nor Väpnargatan 6 Stockholm

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Nova Scotia M Bull —The Nova Society of Nova Scotia C Imperial Publishing Co

Nutrition Abstr & Rev — Animal Nutrition

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Obst & Gynec ... Proceedings of the Royal Society, series B (Biolo ... ge University Press Bentley House London N W 1

Occup Med ... Proceedings of the Royal Society of Medicine Longmans Green & ... Paternoster Row 43 Albert Drive London S W 19

Occup ... er Biol & Med —Proceedings of the Society for Experimental Biology and ... ne The Griffith Press, 100 Liberty St Utica N Y

... **Meet Clin ,Honolulu** Proceedings of the Staff Meetings of the Clinic ... Honolulu 881 Young St Honolulu

... **Staff Meet ,Mayo Clin** Proceedings of the Staff Meetings of the Mayo Clinic Rochester Minn

Progr med ,Napoli Il progresso medico Galleria Umberto I 83 Napoli

Progr méd ,Paris Le progrès médical 8 rue Perronet Paris

Prophylax antiven La prophylaxie antivénérienne 25 Boulevard Saint Jacques Paris 14°

Psychiat en neurol bl Psychiatrische en neurologische bladen uitgegeven door de nederlandsche vereeniging voor psychiatrie en neurologie F van Rossen Amsterdam

Psychiat -neurol Wchnschr —Psychiatrisch neurologische Wochenschrift Carl Marhold Henriettenstrasse 3 Halle Germany

Psychiatric Quart —Psychiatric Quarterly Utica State Hospital Utica N Y

Psychiatry —Psychiatry Journal of the Biology and the Pathology of Interpersonal Relations William Alanson White Psychiatric Foundation 1711 Rhode Island Ave N W Washington 6 D C

Psychoanalyt Quart —Psychoanalytic Quarterly 372–374 Broadway Albany

Psychoanalyt Rev —Psychoanalytic Review 70 Pine St , New York 5

Psychol Monogr —Psychological Monographs Psychological Review Co , Princeton N J (Listed under Books)

Psychol Praxis —Psychologische Praxis S Karger Holbeinstrasse 22 Basel, 215 Fourth Ave, New York 3

Psychol Rev —Psychological Review The American Psychological Association Inc, Massachusetts and Nebraska Aves Washington 16 D C

Psychosom Med —Psychosomatic Medicine The American Society for Research in Psychosomatic Problems Inc, 714 Madison Ave New York 21

Psychosom Med, Monographic Series —(Listed under Books)

Pub Health —Public Health Society of Medical Officers of Health Tavistock House South Tavistock Sq, London, W C 1.

Pub Health Bull —Public Health Bulletin Washington D C (Listed under Books)

Pub Health Nursing —Public Health Nursing 1790 Broadway New York 19

Pub Health Rep —Public Health Reports Superintendent of Documents Government Printing Office, Washington, D C

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Publ méd, São Paulo —Publicaçoes médicas Caixa Postal 95 B Sao Paulo

Puerto Rico J Pub Health & Trop Med —Puerto Rico Journal of Public Health and Tropical Medicine (With Spanish translations) Columbia University Press 2960 Broadway, New York 27

Quaderni Clin ostet e ginec —Quaderni di Clinica ostetrica e ginecologica S Biagio 4 Parma

Quaderni radiol —Quaderni di radiologia Rivista di collaborazione clinico-radiologica Via Simon da Cusighe, Belluno Italia

Quart Bull Health Organ, League of Nations Continued as Bull Health Organ League of Nations

Quart Bull Indiana Univ M Center —Quarterly Bulletin Indiana University Medical Center 1040 W Michigan St Indianapolis

Quart Bull, Northwestern Univ M School —Quarterly Bulletin Northwestern University Medical School 303 E Chicago Ave Chicago

Quart Bull, Sea View Hosp —The Quarterly Bulletin of Sea View Hospital Sea View Hospital, Staten Island N Y

Quart J Exper Physiol —Quarterly Journal of Experimental Physiology and Cognate Medical Sciences Charles Griffin & Co, Ltd 42 Drury Lane London W C 2

Quart J Med —Quarterly Journal of Medicine 123 Woodstock R[illegible] gland

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Quart J Stud on Alcohol —Quarterly Journal of Studies on Alcohol 4 Hillhouse Ave New Haven

Quart Rev Biol —Quarterly Review of Biology Williams & Wilkins Co, Mt Royal and Guilford Aves, Baltimore 2

Quart Rev Obst & Gynec —Quarterly Review of Obstetrics and Gynecology Washington Institute of Medicine, 1720 M St N W Washington 6 D C

Quart Rev Psychiat & Neurol —Quarterly Review of Psychiatry and Neurology Washington Institute of Medicine 1720 M St N W, Washington 6, D C

Radiog & Clin Photog —Continued as M Radiog & Photog

Radiography —Radiography The Society of Radiographers 32 Welbeck St, London W 1

Radiol med —La radiologia medica, rivista mensile E. Zerboni, Via C. Poerio 15 Milano 120

Radiol prat Radiologie pratique 13 rue Puits Gaillot Lyon

Radiologia Radiología Aluna 3117 Buenos Aires

Radiology —Radiology A Monthly Journal Devoted to Clinical Radiology and Allied Sciences Radiological Society of North America 607 Medical Arts Bldg Syracuse 2

Rassegna di fisiopat clin e terap Rassegna di fisiopatologia clinica e terapeutica Casella postale 21 Pisa (Continuation of Rassegna di terap e pat clin)

Rassegna internaz clin e terap Rassegna internazionale di clinica e terapia Via S Sebastiano 65 Napoli 173

Rassegna ital d'ottal —Rassegna italiana d'ottalmologia Rosenberg & Sellier Via Andrea Doria 14 Torino

Rassegna med —Rassegna medica Via Carlo Tenca 32 34 Milano

Rassegna di med indust Rassegna di medicina industriale Via Mario Gioda 2, Torino (Continuation of Rassegna di med appl lavoro indust)

Rassegna med sarda —Rassegna medica sarda Istituto anatomico della Università Via Genovesi N 149 Cagliari

Rassegna di studi psichiat Rassegna di studi psichiatrici Tip S Bernardino Via Paolo Mascagni N 33 Siena

Recenti progr med —Recenti progressi in medicina Via Aterno 8 Roma

Research Publ, A Nerv.& Ment Dis See A Research Nerv & Ment Dis Proc.

Research Quart —The Research Quarterly Published by the American Association for Health Physical Education and Recreation 1201 16th St N W Washington 6 D C

Resenha clin-cient —Resenha clínico-científica Rua Conselheiro Brotero 1263 São Paulo

Rev argent de cardiol —Revista argentina de cardiología Larrea 1132 Buenos Aires

Rev argent dermatosif Revista argentina de dermatosifilología El Ateneo Córdoba 2099 Buenos Aires

Rev argent hist med —Revista argentina de historia de la medicina Organo oficial del ateneo de historia de la medicina Echeverria 1606 Buenos Aires

Rev argent de neurol y psiquiat —Revista argentina de neurología y psiquiatría Sala 3 Hospital Nacional del Centenario Rosario de Santa Fe

Rev argent-norteam cien méd —Revista argentino-norteamericana de ciencias médicas [With English abstracts] Ayacucho 576 Buenos Aires

Rev argent de reumatol —Revista argentina de reumatología Victoria 4177 Buenos Aires

Rev argent de tuberc —Revista argentina de tuberculosis Santa Fe 4292 Buenos Aires

Rev argent de urol —Revista argentina de urología Charcas 1358 Buenos Aires

Rev Asoc argent dietol —Revista de la Asociación argentina de dietología Calle Pueyrredón 2423 Buenos Aires

Rev Asoc méd argent —Revista de la Asociación médica argentina Calle Santa Fe 1171 Buenos Aires

Rev Assoc paulista de med —Continued as Rev paulista de med

Rev belge sc méd —Revue belge des sciences médicales Librairie René Fonteyn 13 Place Foch Louvain

Rev belge tuberc —Revue belge de la tuberculose 56 rue de la Concorde Bruxelles

Rev brasil de biol —Revista brasileira de biologia Orgão oficial da Sociedade de biologia do Brasil Caixa postal 1 587, Rio de Janeiro

Rev brasil de cir —Revista brasileira de cirurgia Av Nilo Peçanha, 38, Rio de Janeiro

Rev brasil de leprol —Revista brasileira de leprologia 2ª Serie da Revista de leprologia de São Paulo Av Dr Arnaldo, 925 São Paulo

Rev brasil med —Revista brasileira de medicina The Original Articles are Accompanied by Ab tracts in English Almirante Barroso 90 Rio de Janeiro

Rev brasil de oto-rino-laring —Revista brasileira de oto-rino laringologia Rua de S Bento 181, Sao Paulo (Continuation of Rev oto laring de Sao Paulo)

Rev canad de biol —Revue canadienne de biologie Université de Montréal Montréal

Rev chilena de hig y med prev —Revista chilena de higiene y medicina preventiva Dirección General de Sanidad Casilla 41 D, Santiago de Chile

Rev chilena de pediat —Revista chilena de pediatría Sociedad chilena de pediatría, Casilla 38, Santiago, Chile

Rev clin españ —Revista clínica espanola Antonio Maura 13 Madrid

Rev clin de São Paulo —Revista clinica de São Paulo Rua 7 de Abril 235 São Paulo

Rev cubana de cardiol —Revista cubana de cardiología Apartado 2108 Habana

Rev cubana de obst y ginec —Revista cubana de obstetricia y ginecología Apartado de Correos no 1091, Habana

Rev cubana pediat —Revista cubana de pediatría Apartado 2430 Habana (Continuation of Bol Soc cubana de pediat)

Rev dietet —Revue de diététique 13 rue Puits Gaillot Lyon

Rev españ cir —Revista española de cirugía Atocha 115 Madrid

Rev españ cir ,traumatol y ortop —Revista española de cirugía traumatología y ortopedia Velázquez 106 pral Madrid

Rev españ enferm ap digest y nutricion —Revista española de las enfermedades del aparato digestivo y de la nutrición F G Sicilia Flora 6 Madrid

Rev españ obst y ginec —Revista espanola de obstetricia y ginecología Gran Via de Fernando el Católico 27, pral Valencia

Rev españ oto-neuro-oftal y neurocir —Revista espanola de oto neuro oftalmología y neurocirugía Calle Hospital 14 Valencia

Rev españ pediat —Revista espanola de pediatría Independencia 25 Zaragoza

Rev españ de tuberc —Revista espanola de tuberculosis Organo oficial del Patronato nacional *antituberculoso* Alcalá 76 moderno Madrid

Rev Fac de med ,Bogota —Revista de la Facultad de medicina Carrera 6ª Nos 12–60 A 12–66 Bogotá Colombia

Rev farm ,Buenos Aires —Revista farmacéutica Organo oficial de la Asociación farma céutica y bioquímica argentina Bartolomé Mitre 2041 Buenos Aires

Rev flum de med —Revista fluminense de medicina Caixa Postal 74 Niteroi Rio de Janeiro

Rev franç de pediat —Merged with Arch franç pédiat

Rev franç de pueric ult —Revue française de puériculture G Doin & Cie 8 Place de l Odéon Paris 6ª (Temporarily suspended)

Rev Gastroenterol —The Review of Gastroenterology Official Publication of the National Gastroenterological Association 1819 Broadway New York 23

Rev de gastro-enterol de México —Revista de gastro-enterología de México Plaza de la *República no 46* México D F

Rev gén de clin et de thérap Revue générale de clinique et de thérapeutique Journal des praticiens 8 Square du Croisic (Bd Montparnasse) Paris

Rev de ginec e d'obst Revista de ginecologia e d obstetricia Rua Lavradio 134 Rio de Janeiro (Continuation of Rev de gynec e d obst)

Rev d hémat —Revue d hématologie Masson & Cie 120 Boulevard Saint Germain Paris 6°

Rev Hosp clin —Revista do Hospital das clinicas Hospital das clinicas São Paulo

Rev d'immunol —Revue d immunologie Masson & Cie 120 Boulevard Saint Germain Paris 6°

Rev d Inst bact ,Buenos Aires.—Revista del Instituto bacteriológico Dr Carlos G Malbrán Vélez Sársfield 563 Buenos Aires

Rev d Inst salub y enferm trop Revista del Instituto de salubridad y enfermedades tropicales Biblioteca del Instituto México D F

Rev internat Croix-Rouge —Revue internationale de la Croix Rouge Hôtel de la Metropole Genève

Rev Kuba Revista Kuba de medicina tropical y parasitología 5a Avenida y Calle 78, Habana (Continuation of Kuba)

Rev leprol ,dermat y sif —Continued as Rev sif lepr y dermat

Rev de méd ,Paris. —Revue de médecine Félix Alcan 108 Boulevard Saint Germain Paris

Rev de med y aliment —Revista de medicina y alimentación Casilla 38 Santiago de Chile

Rev med Bahia —Revista medica da Bahia Edificio da A Tarde Bahia Brasil

Rev méd brasil —Revista médica brasileira Rua Mexico 164 Rio de Janeiro

Rev méd de Chile —Revista médica de Chile Casilla 38 Santiago Chile

Rev de med y cir ,Barranquilla Revista de medicina y cirugía Apartado No 202 Barranquilla Colombia

Rev med -cir do Brasil Revista medico-cirurgica do Brasil Rua Araujo Porto Alegre 70 Rio de Janeiro

Rev de med y cir Habana Revista de medicina y cirugía de la Habana Dr Rodríguez Pérez Línea 962 Altos Habana

Rev med e cir de São Paulo Revista de medicina e cirurgia de São Paulo Rua do Carmo 54 São Paulo (Continuation of Bol Soc de med e cir de São Paulo)

Rev med de Córdoba Revista médica de Cordoba Organo oficial del Círculo médico y sus filiales Colón 637 Córdoba (R A)

Rev méd Costa Rica —Revista médica de Costa Rica Apartado 978 San José Costa Rica (Continuation of Rev méd San José)

Rev méd cubana —Revista médica cubana Apartado 422 Habana

Rev med franç —Revue médicale française Librairie Maloine 27 rue de l École-de Médecine Paris 6°

Rev med d Hosp brit —Revista médica del Hospital británico Hospital británico Perdriel 74 Buenos Aires

Rev med d Hosp ital de La Plata —Revista médica del Hospital italiano de La Plata Hospital Humberto 1° calle 51 La Plata

Rev méd La Plata —Revista médica de La Plata Organo oficial de la Sociedad médica y sus filiales Calle 50 N 374, La Plata Argentina

Rev med leg y jurisp méd —Revista de medicina legal y jurisprudencia médica Mitre 1313 Rosario Argentina

Rev méd Liége —Revue médicale de Liége Journal du praticien C C Postaux no 779 832 Liége

Rev med munic —Revista médica municipal Avenida Graça Aranha 81 Rio de Janeiro

Rev méd nav —Revue de médecine navale (métropole et outre mer) Travaux scientifiques des médecins et pharmaciens-chimistes de la marine Masson & Cie 120 Boulevard Saint Germain Paris 6ᵉ

Rev med de Pernambuco —Revista medica de Pernambuco Edificio Sul America Pernambuco Brasil

Rev med peruana —Revista médica peruana Casilla Correo 925 Lima

Rev med-quir de Oriente —Revista médico quirurgica de Oriente Lacret y Aguilera Santiago de Cuba

Rev méd de Rosario —Revista médica de Rosario (República Argentina) Círculo Médico Calle Italia 663 Rosario de Santa Fe Argentina

Rev med, San Jose See Rev méd Costa Rica

Rev méd de la Suisse Rom —Revue medicale de la Suisse Romande Librairie Payot & Cie 1 rue de Bourg Lausanne

Rev de med trop y parasitol, bacteriol, clin y lab —Revista de medicina tropical y parasitología bacteriología clinica y laboratorio Apartado 899 Habana (Continuation of Rev de parasitol clin y lab)

Rev med de Yucatan —Revista médica de Yucatán Sociedad Médica Yucateca Edificio La Nacional' Depto 203 Mérida Yucatán

Rev mex de cir, ginec y cancer —Revista mexicana de cirugía ginecología y cáncer Marsella 11, México D F

Rev mex de pediat —Revista mexicana de pediatría Bucareli num 85 México D F

Rev mex psiquiat, neurol y med leg —Revista mexicana de psiquiatría neurología y medicina legal Genova 39 México D F

Rev mex de tuberc —Revista mexicana de tuberculosis y enfermedades del aparato respiratorio Regina No 7 Mexico D F

Rev neurol —Revue neurologique Bulletin officiel de la Société de neurologie de Paris Masson & Cie 120 Boulevard Saint Germain Paris 6ᵉ

Rev neurol de Buenos Aires —Revista neurologica de Buenos Aires Libertad 960 Buenos Aires

Rev neurol e psiquiat de São Paulo —Revista de neurologia e psiquiatria de São Paulo Caixa Postal 1758 Sao Paulo

Rev neuro-psiquiat —Revista de neuro psiquiatría Casilla 1589 Lima

Rev obst y ginec Caracas —Revista de obstetricia y ginecología Apartado de Correos 1428 Caracas

Rev de obst e ginec de São Paulo —Revista de obstetricia e ginecologia de Sao Paulo Caixa Postal 168 Sao Paulo

Rev d'orthop —Revue d orthopédie et de chirurgie de l appareil moteur Masson & Cie 120 Boulevard Saint Germain Paris 6ᵉ

Rev ortop y traumatol —Revista de ortopedia y traumatología Maipú 757, Buenos Aires

Rev oto-neuro-oftal —Revista oto neuro oftalmológica y de cirugía neurológica sud americana Casilla Correos 325 Buenos Aires

Rev otorrinolaring —Revista de otorrinolaringología Rosas 910 Santiago Chile

Rev du palud —Revue du paludisme et de médecine tropicale 36 rue Sainte Croix de la Bretonnerie Paris 4ᵉ

Rev de path comparée —Revue de pathologie comparée et d hygiène générale 7 rue Gustave Nadaud Paris 16ᵉ

Rev paulista de med —Revista paulista de medicina Caixa Postal 2103 São Paulo (Continuation of Rev Assoc paulista de med)

Rev paulista de tisiol —Revista paulista de tisiología Caixa Postal 3044 São Paulo

Rev Policlin Caracas.—Revista de la Policlínica Caracas Apartado 512, Caracas

Rev psicoanál —Revista de psicoanálisis Organo oficial de la Asociación psicoanalítica argentina Filial argentina de la Asociación psicoanalítica internacional Juncal 655–1° B, Buenos Aires

Rev psiquiat y criminol —Revista de psiquiatría y criminología Ayacucho 1084 Buenos Aires

Rev radiol y fisioterap Revista de radiología y fisioterapia 135 S LaSalle Chicago 3

Rev.san y asist social —Revista de sanidad y asistencia social Ministerio de sanidad y asistencia social Caracas

Rev.san e hig pub —Revista de sanidad e higiene publica Instituto nacional de sanidad Apartado 1281 Madrid

Rev san mil argent —Revista de la sanidad militar argentina Pozos 2045 Buenos Aires (Continuation of Rev san mil Buenos Aires)

Rev.san mil ,Buenos Aires —Continued as Rev san mil argent

Rev.san mil ,Caracas —Revista de sanidad militar Hospital Militar y Naval Caracas

Rev.san mil ,Habana —Revista de la sanidad militar Ciudad Militar Habana

Rev.san de policia —Revista de la sanidad de policía Casilla No 1683 Lima

Rev.sc oto-rhino-laryng Revue des sciences oto-rhino-laryngologiques Clinique O R L Cluj Roumanie

Rev Scient Instruments. —Review of Scientific Instruments American Institute of Physics 175 5th Ave New York 10

Rev.sif ,leprol y dermat —Revista de sifilografía leprología y dermatología Organo oficial del Patronato para la profilaxis de la sífilis lepra y enfermedades cutáneas Calzada de Columbia y Avenida 8ª Marianao Cuba (Continuation of Rev leprol dermat y sif)

Rev Soc argent de biol —Revista de la Sociedad argentina de biología Calle Santa Fe 1171 Buenos Aires

Rev Soc pediat d litoral —Revista de la Sociedad de pediatría del litoral Hospital Centenario Rosario República Argentina (Continuation of Rev Soc pediat de Rosario)

Rev Soc pediat de Rosario —Continued as Rev Soc pediat d litoral

Rev Soc puericult Buenos Aires —Revista de la Sociedad de puericultura de Buenos Aires Belgrano 2563 Buenos Aires

Rev de stomatol —La revue de stomatologie Organe officiel de la Société de stomatologie de France Masson & Cie 120 Boulevard Saint Germain Paris, 6ᵉ

Rev.sudam morfol Revista sudamericana de morfología Andrés F Bianchi Córdoba 827 Buenos Aires

Rev de la tuberc —Revue de la tuberculose Masson & Cie 120 Boulevard Saint Germain Paris 6ᵉ

Rev tuberc ,Habana —Revista de tuberculosis Línea num 51 esquina a N Vedado Habana

Rev de tuberc d Uruguay —Revista de tuberculosis del Uruguay Organo oficial de la Sociedad de tisiología Casilla de Correo 835 Montevideo

Rev urol ,Mexico —Revista de urología Organo oficial de la Sociedad mexicana de urología Colima 282 México D F

Rheumatism —Rheumatism Journal of Charterhouse Rheumatism Clinic Rolls House Publishing Co Ltd 2 Breams Buildings London E C 4

Rhode Island M J —Rhode Island Medical Journal Rhode Island Medical Society 106 Francis St Providence R I

Riforma med —La riforma medica Discesa Trinità Maggiore, 53, Napoli

Riv clin med —Rivista di clinica medica. Borgognissanti, 9, Firenze

Riv.clin pediat —Rivista di clinica pediatrica Via Luca Giordano, 13, Firenze 123

Riv ital di ginec —Rivista italiana di ginecologia L Cappelli, Via Farini 6, Bologna

Riv ital d'ig —Rivista italiana d'igiene Piazza Castelletto, Pisa

Riv di malariol —Rivista di malariologia Sezione I Contributi originali Sezione II Recensioni Via Antonio Salandra (già delle Finanze) 14, Roma, 130

Riv.neurol —Rivista di neurologia Prof Mario Gozzano Clinica neurologica, Porta Saragozza, Bologna

Riv ostet e ginec —Rivista di ostetricia e ginecologia Via degli Alfani 58, Firenze

Riv d'ostet e ginec prat.—Rivista d ostetricia e ginecologia pratica Via Giuseppina Lazzaroni, 12, Milano

Riv oto-neuro-oftal —Rivista oto-neuro-oftalmologica Clinica Oculistica, Ospedale S Orsola Bologna

Riv di pat e clin d tuberc —Rivista di patologia e clinica della tubercolosi Via Dante 6, Bologna

Riv di pat nerv.—Rivista di patologia nervosa e mentale Prof M Zalla, Clinica di San Salvi, Firenze, 117

Riv di pat sper.—Rivista di patologia sperimentale Corso Raffaello 30 Torino

Riv.storia sc med e nat —Rivista di storia delle scienze mediche e naturali Piazza dei Giudici, 1, Firenze

Rocky

Rontge

S Clin.North America.—Surgical Clinics of North America W B Saunders Co, W Washington Sq, Philadelphia 5

Sang —Le sang G Doin & Cie, Place de L'Odéon, Paris

São Paulo méd —São Paulo médico Caixa Postal 234-A, São Paulo

Sborn lek —Sborník lékařský Vladislavova 14 Praha 2

Schweiz Arch f Neurol u Psychiat —Schweizer Archiv fur Neurologie und Psychiatrie Archives suisses de neurologie et de psychiatrie Art Institut Orell Füssli Dietzingerstrasse, 3, Zürich 3

Schweiz med Wchnschr —Schweizerische medizinische Wochenschrift. Benno Schwabe & Co, Klosterberg 27 Basel 10

Schweiz.Ztschr f Path u Bakt —Schweizerische Zeitschrift fur Pathologie und Bakteriologie S Karger Holbeinstrasse 22, Basel (Continuation of Schweiz Ztschr f allg Path u Bakt)

Schweiz.Ztschr Tuberk —Schweizerische Zeitschrift für Tuberkulose S Karger, Holbeinstrasse 22, Basel

Science —Science The Scientists Newsweekly 1515 Massachusetts Ave N W, Washington 5, D. C.

Semana méd —La semana médica [illegible] Aires

Sett med —La settimana medica Via delle Porte Nuove, 24, Firenze

Sight-Saving Rev —Sight Saving Review National Society for the Prevention of Blindness Inc 1790 Broadway New York 19

Siglo méd —El siglo médico Semana médica española Calle de Lopez de Hoyos 11, Madrid

Smithsonian Inst ,Annual Rep —Annual Report of the Board of Regents of the Smithsonian Institution United States Government Printing Office Washington D C

Soc de cir de Córdoba,Bol y trab See Bol y trab Soc de cir de Córdoba

Soc de méd mil franç ,Bull mens Société de médecine militaire française Bulletin mensuel Charles-Lavauzelle & Cie 124 Boulevard Saint Germain Paris (Temporarily suspended)

South African J M Sc —The South African Journal of Medical Sciences Medical School Hospital St Johannesburg

South African M J —South African Medical Journal Box 643 Cape Town South Africa (Continuation of J M A South Africa)

South Hosp Southern Hospitals Clark Smith Pub Co 218 W Morehead St Charlotte N C

South M J Southern Medical Journal Empire Bldg Birmingham Ala

South Med & Surg Southern Medicine and Surgery 306 N Tryon St Charlotte N C

South Surgeon The Southern Surgeon The Southern Surgeon Pub Co 701 Hurt Bldg Atlanta Ga

Sovet med Sovetskaya meditsina Rakhmanovskiy per 3 Moskva

Sovet psikhonevrol Sovetskaya psikhonevrologiya U L K Libknekhta no 4 Kharkov

Sovet zdravookh Turkmenii Sovetskoe zdravookhranenie Turkmenii Ul Engelsa 72 Ashkhabad TSSR

Speech Monogr —Speech Monographs The National Association of Teachers of Speech Wayne University Detroit

Sperimentale, Arch biol —Lo sperimentale Archivio di biologia normale e patologica (Organo della Academia medico-fisica fiorentina) Viale G B Morgagni 1 Firenze

Spisy lék fak Masaryk Univ —Spisy lékarské fakulty Masarykovy University Komenského nám 2 Brno Czechoslovakia

St Barth Hosp J —St Bartholomew s Hospital Journal London E C 1

St Thomas's Hosp Gaz —St Thomas s Hospital Gazette Records Clerk The Medical School St Thomas s Hospital Westminster Bridge London S E 1

Stain Technol —Stain Technology A Journal for Microtechnic Biotech Publications Geneva N Y

Stanford M Bull —Stanford Medical Bulletin 2560 Bancroft Way Berkeley

Stanford Univ Publ ,Univ Series,M Sc —Stanford University Publications University Series Medical Sciences Stanford University Press Stanford University California

Statist Bull Metrop Life Insur Co —Statistical Bulletin Metropolitan Life Insurance Company Metropolitan Life Insurance Co 1 Madison Ave New York 10

Stud Inst M Research,Federated Malay States —Studies from the Institute for Medical Research Federated Malay States Institute for Medical Research Kuala Lumpur, F M S (Listed under Books)

Surg ,Gynec & Obst —Surgery Gynecology and Obstetrics with International Abstract of Surgery Surgical Publishing Co , 54 E Erie St , Chicago 11 (British office—8 Henrietta St Covent Garden London W C 2)

Surgery —Surgery C V Mosby Co 3207 Washington Blvd , St Louis 3

Surgo —Surgo Glasgow University Medical Journal The Union University Ave , Glasgow, W 2

Survey —The Survey. Survey Associates Inc 112 E 19th St, New York 3

Survey Graphic —Survey Graphic Survey Associates Inc 112 E 19th St, New York 3

Svenska lak -sallsk forhandl —Published in Nord med

Tech Supp, Am J Clin Path See Am J Clin Path

Texas Rep Biol & Med —Texas Reports on Biology and Medicine University of Texas Medical Branch, Galveston

Texas State J Med —Texas State Journal of Medicine 1404 W El Paso St Fort Worth

Thorax —Thorax The Association for the Study of Diseases of the Chest British Medical Association House Tavistock Square London W C 1

Tidskr i mil halsov —Tidskrift i militär hälsovård The Chief of Staff to the Surgeon General Forsvarets sjukvardsforvaltning Kungsgatan 8 Stockholm 7

Tijdschr v diergeneesk —Tijdschrift voor diergeneeskunde Begijnehof 7 Utrecht

Toko-ginec práct —Toko ginecologia práctica Juan Montalvo 33 Madrid

Tr A Am Physicians —Transactions of the Association of American Physicians Philadelphia

Tr A Life Insur M Dir America —Transactions of the Association of Life Insurance Medical Directors of America H E Ungerleider Ed 393 7th Ave New York 1 (Continuation of Proc A Life Insur M Dir America)

Tr Am A Genito-Urin Surgeons —Transactions of the American Association of Genito Urinary Surgeons Bruce Publishing Co 2642 University Ave St Paul

Tr Am A Study Goiter —Transactions of the American Association for the Study of Goiter —The Western Journal of Surgery Publishing Co 305 S W Fifth Ave Portland 4, Ore

Tr Am Acad Ophth —Transactions of the American Academy of Ophthalmology and Otolaryngology, 100 First Avenue Bldg Rochester Minn

Tr Am Clin & Climatol A —Transactions of the American Clinical and Climatological Association Dr Francis B Trudeau 105 Main St Saranac Lake N Y

Tr Am Gynec Soc —Transactions of the American Gynecological Society C V Mosby Co, 3207 Washington Blvd St Louis 3

Tr Am Laryng A —Transactions of the American Laryngological Association 1010 Beaumont Bldg St Louis

Tr Am Laryng, Rhin & Otol Soc —Transactions of the American Laryngological Rhinological and Otological Society Inc Boston

Tr Am Neurol A —Transactions of the American Neurological Association W O Klingman Sec y 195 Ft Washington Ave New York 32

Tr Am Ophth Soc —Transactions of the American Ophthalmological Society Dr Bernard Samuels 57 W 57th St New York 19

Tr Am S A —Transactions of the American Surgical Association J B Lippincott Co 227 S 6th St Philadelphia 5

Tr Edinburgh Obst Soc —Published in Edinburgh Medical Journal

Tr Indiana Acad Ophth & Otolaryng —Transactions of the Indiana Academy of Ophthalmology and Otolaryngology Indianapolis

Tr Kansas Acad Sc —Transactions of the Kansas Academy of Science University of Kansas Library Lawrence Kan

Tr M Soc London —Transactions of the Medical Society of London 11 Chandos St Cavendish Sq London W 1

Tr Med -Chir Soc Edinburgh —Published in Edinburgh Medical Journal

Tr Nat Tuberc A See Nat Tuberc A Tr

Tr New England S Soc —Transactions of the New England Surgical Society New England Journal of Medicine, 8 The Fenway Boston 15

Tr Ophth Soc U Kingdom.—Transactions of the Ophthalmological Society of the United Kingdom C J Anderson 5 Racquet Court, Fleet St London, E C 4

Tr Pacific Coast Oto-Ophth Soc —Transactions of the Pacific Coast Oto-Ophthalmological Society Dr C Allen Dickey 450 Sutter St San Francisco

Tr Roy Med-Chir Soc Glasgow —Published in Glasgow Medical Journal

Tr Roy Soc Canada (Sect V,Biol.Sc) —Transactions of the Royal Society of Canada Section V, Biological Sciences Ottawa

Tr Roy Soc Trop Med & Hyg —Transactions of the Royal Society of Tropical Medicine and Hygiene Manson House 26 Portland Place London W 1

Tr Sect Ophth ,A M A —Transactions of the Section on Ophthalmology of the American Medical Association 535 N Dearborn St Chicago 10

Tr South S A —Transactions of the Southern Surgical Association J B Lippincott Co 227 231 S 6th St Philadelphia 5

Tr & Stud ,Coll Physicians Philadelphia —Transactions and Studies of the College of Physicians of Philadelphia College of Physicians 19 S 22nd St Philadelphia 3

Tr West S A Transactions of the Western Surgical Association Bruce Publishing Co 2642 University Ave St Paul

Tr West Sect ,Am Urol A —Transactions of the Western Section of the American Urological Association Dudley P Fagerstrom, 241 F Santa Clara St San Jose Calif (Continuation of Tr West Br Am Urol A)

Treat.Serv Bull —Treatment Services Bulletin Department of Veterans Affairs Daly Bldg Ottawa Canada

Trop Dis Bull —Tropical Diseases Bulletin Bureau of Hygiene and Tropical Diseases Keppel St Gower St London W C 1

Trop Med.News —Tropical Medicine News The American Society of Tropical Medicine, National Institute of Health Bethesda 14 Md

Tubercle —Tubercle Respiratory and Ancillary Diseases John Bale Medical Publications Ltd Staples House Cavendish Place London W 1

Tubercolosi —Tubercolosi Giornale di studi e di lotta antitubercolare Via Ludovisi 16 Roma

Tuberculology —Tuberculology Official Journal of the American Academy of Tuberculosis Physicians The American Academy of Tuberculosis Physicians 3800 East Colfax Ave Denver 6 (Continuation of Bull Acad Tuberc Physicians)

Tuberk -Biblioth Tuberkulose Bibliothek (Beiheft zur Zeitschrift für Tuberkulose) Johann Ambrosius Barth Salomonstrasse 18 B Leipzig (Listed under Books)

Türk tıb cem mec (Türk tıp cem mec) —Türk tıb cem yeti mecmuası (Bulletins de la Société turque de médecine) Bursa sokağına d key Istiklâl Caddesi Beyoğlu Istanbul Türkiye

Tufts M J —Tufts Medical Journal 416 Huntington Ave Boston 15

Tumori —Tumori Via Marcona, 50, Milano

Tunisie méd —La Tunisie médicale 25, Avenue de Paris Tunis

U S Nav M Bull —United States Naval Medical Bulletin Superintendent of Documents Government Printing Office Washington D C

Ugesk f læger —Ugeskrift for læger Den alm danske Lægeforening 5 Amaliegade København

Ulster M J —The Ulster Medical Journal Mr J S Loughridge 26 University Sq Belfast Ireland

Union méd du Canada —L'union médicale du Canada Bulletin de l Association des médecins de langue française de l Amérique du Nord 326 est, Boulevard Saint Joseph Montréal

Univ Buenos Aires Misión estud pat reg argent —Universidad de Buenos Aires Misión de estudios de patología regional argentina Jujuy, Universidad de Buenos Aires Buenos Aires

Univ California Publ ,Anat —University of California Publications in Anatomy University of California Press Berkeley

Univ California Publ ,Entomol —University of California Publications in Entomology University of California Press, Berkeley

Univ California Publ ,Microbiol —University of California Publications in Microbiology University of California Press Berkeley

Univ California Publ ,Pharmacol —University of California Publications in Pharmacology University of California Press Berkeley

Univ California Publ ,Physiol —University of California Publications in Physiology University of California Press Berkeley

Univ California Publ Zool —University of California Publications in Zoölogy University of California Press, Berkeley

Univ Hosp Bull ,Ann Arbor —University Hospital Bulletin University Hospital University of Michigan Ann Arbor

Univ West Ontario M J —University of Western Ontario Medical Journal University of Western Ontario Med cal School London Canada

Upsala lakaref förh —Upsala läkareförenings forhandlingar Almqvist & Wiksells Boktryckeri A B , Upsala

Urol & Cutan Rev —Urologic and Cutaneous Review 3829 Paseo Navarra West Palm Beach Fla

Valsalva —Il valsalva Rivista mensile di oto rino-laringojatria Via Sistina N 14 Roma

Ven Dis Inform —Continued as J Ven Dis Inform

Vestnik oftal —Vestnik oftalmologii Orlikov per 3 Dom knigi Medgiz Moskva (Continuation of Sovet vestnik oftal)

Vet Med —Veterinary Medicine D M Campbell Ed 7632 S Crandon Ave , Chicago 49

Vida nueva —Vida nueva Manzana de Gomez 222–23 Habana

Villaclara med —Villaclara médica Organo oficial del cuerpo médico farmacéutico dental y de la Sociedad de medicina y cirugía de Santa Clara Trustá núm 18 Santa Clara Cuba

Virchows Arch f path Anat —Virchows Archiv fur pathologische Anatomie und Physiologie und fur klinische Medizin Springer Verlag Neuenheimer Landstrasse 24 Heidelberg

Virginia M Monthly —Virginia Medical Monthly 1200 E Clay St, Richmond.

Volkskragte See Manpower

Vopr neyrokhir —Voprosy neyrokhirurgii Orlikov per d 3 Moskva.

Vrach delo – Vrachebnoe delo Ul Olminskogo no 11 Kharkov

Washington Univ M Alumni Quart —The Washington University Medical Alumni Quarterly 602 S Euclid Ave St Louis 10

West J Surg —The Western Journal of Surgery, Obstetrics and Gynecology ... Fifth Ave Portland 4 Ore

West Virginia M J —West Virginia Medical Journal. 302 Atlas Bldg. C

Wien Arch f inn Med —Wiener Archiv fur innere Medizin und deren Grenzgebiete Urban & Schwarzenberg Wien, 71

Wien klin Wchnschr —Wiener klinische Wochenschrift Springer-Verlag Mölkerbastei 5, Wien, 1

Wien med Wchnschr —Wiener medizinische Wochenschrift Steingasse 25 Wien 3

Wisconsin M J —Wisconsin Medical Journal 917 Tenney Bldg Madison Wis

Yale J Biol & Med —Yale Journal of Biology and Medicine 333 Cedar St New Haven

Zentralbl f allg Path u path Anat —Zentralblatt fur allgemeine Pathologie und pathologische Anatomie Gustav Fischer Jena

Zentralbl f Bakt —Zentralblatt fur Bakteriologie Parasitenkunde und infektionskrankheiten (Abteilungen 1 und 2) Gustav Fischer Jena (Continuation of Centralbl f Bakt)

Zentralbl f d ges Tuberk -Forsch —Zentralblatt für die gesamte Tuberkulosefrorschung Springer Verlag OHG Mölkerbastei 5 Wien I

Zentralbl f Gewerbehyg —Zentralblatt für Gewerbehygiene und Unfallverhutung Springer Verlag OHG Mölkerbastei 5 Wien I

Ztschr f Biol Zeitschrift für Biologie J F Lehmanns Verlag Paul Heysestrasse 26 München 15

Ztschr f d ges exper Med —Zeitschrift für die gesamte experimentelle Medizin Springer Verlag Neuenheimer Landstrasse 24 Heidelberg

Ztschr f d ges Krankenhausw Zeitschrift für das gesamte Krankenhauswesen Springer Verlag OHG Mölkerbastei 5 Wien I

Ztschr f Hyg u Infektionskr Zeitschrift für Hygiene und Infektionskrankheiten Springer Verlag Neuenheimer Landstrasse 24 Heidelberg

Ztschr f Immunitatsforsch u exper Therap —Zeitschrift für Immunitätsforschung und experimentelle Therapie Gustav Fischer Jena

Ztschr f Infektionskr —Zeitschrift für Infektionskrankheiten parasitäre Krankheiten und Hygiene der Haustiere Richard Schoetz Wilhelmstrasse 125 Berlin S W 68

Ztschr f Kinderh —Zeitschrift für Kinderheilkunde Springer Verlag OHG Mölkerbastei 5 Wien I

Ztschr f Kinderpsychiat —Zeitschrift für Kinderpsychiatrie (Journal de psychiatrie infantile) Benno Schwabe & Co Klosterberg 27 Basel 10

Ztschr f Krebsforsch —Zeitschrift für Krebsforschung Springer Verlag OHG Mölkerbastei 5 Wien I

Ztschr f Kruppelfursorge —Zeitschrift für Krüppelfürsorge Johann Ambrosius Barth Salomonstrasse 18 B Leipzig C 1

Ztschr f Orthop —Zeitschrift fur Orthopädie und ihre Grenzgebiete Ferdinand Enke Verlag Hasenbergsteige 3 Stuttgart W (Continuation of Ztschr f orthop Chir)

Ztschr f physiol Chem —Hoppe-Seyler s Zeitschrift fur physiologische Chemie Walter de Gruyter & Co Woyrschstrasse 13 Berlin W 35

Ztschr f Psychol —Zeitschrift für Psychologie Johann Ambrosius Barth Salomonstrasse 18 B Leipzig C 1

Ztschr f Stomatol —Zeitschrift für Stomatologie Urban & Schwarzenberg Wien 71

Ztschr f Vitaminforsch —Zeitschrift für Vitaminforschung zugleich Zentralblatt fur Vitaminologie und verwandte Ernährungsprobleme Hans Huber, Bern 16

II PERIODICALS NOT INDEXED

The following list includes the names of periodicals not regularly indexed in the *Quarterly Cumulative Index Medicus* Some of these periodicals have been discontinued, and some, while not strictly medical, treat of sciences closely related to medicine, In addition there are periodicals such as the house organs of pharmaceutic manufacturers or concerns selling medical supplies Periodicals marked with an asterisk are indexed occasionally

Acad nat curios ephem —Academiae Caesareo Leopoldinae naturae curiosorum ephemerides Frankfurt, Germany

Acción med —Acción médica Buenos Aires Argentina

Acta Acad nat curios —Acta physico-medica Academiae Caesareae naturae curiosorum exhibentia ephemerides Nornberg Germany

***Acta clin.belg** —Acta clinica belgica Hôpital Universitaire Saint Pierre rue Haute, Bruxelles

Acta helvet —Acta helvetica physico-mathematico-botanico medica Basel Switzerland

***Acta odont Scandinav** —Acta odontologica Scandinavica P A Norstedt & Soner Tryckerigatan 2, Stockholm

***Acta oto-laryng orient** —Acta oto-laryngologica orientalia P O B 492 Jerusalem

Actas de la primera conf latino am de neurol ,psiquiat y med leg —Actas de la primera conferencia latino americana de neurología psiquiatría y medicina legal Buenos Aires, Argentina

Actinoterapia —Actinoterapia rivista internazionale di terapia dei raggi sostanze radioattive Naples

Actualite méd —Actualité médicale Paris

Aerztl Ber d k k.allg Krankenh zu Wien —Aerztliche Berichte des kais königlichen allgemeinen Krankenhauses zu Wien Vienna

Aerztl Cor -Bl f Bohmen —Aerztliches Correspondenzblatt fur Böhmen Prague, Czechoslovakia (Continued as Prag med Wchnschr)

Arztl Praxis —Die ärztliche Praxis Vienna

Aerztl Rundschau —Aerztliche Rundschau Munich Germany

Aerztl Sachverst -Ztg —Aerztliche Sachverstandigen Zeitung Berlin

Aerztl Vereinsbl f Deutschland —Aerztliches Vereinsblatt fur Deutschland Leipzig

***Afrique franç chir** —L Afrique française chirurgicale 3 rue Pélissier, Alger

Air Surgeon's Bull —Air Surgeon s Bulletin Washington D C (Ceased publication)

***Akad Iatr** —Akadimaiki Iatriki 70 Patision St Athens

***Alexander Blain Hosp Bull** —Alexander Blain Hospital Bulletin 2201 Jefferson Ave , E Detroit

***Algerie-med** —L Algérie médicale 3 rue Pélissier Alger

Alienist & Neurol —Alienist and Neurologist St Louis

Alkoholfrage —Die Alkoholfrage Berlin

Allg balneol.Ztg —Allgemeine balneologische Zeitung Prague, Czechoslovakia

Allg med Centr -Ztg —Allgemeine medicinische Central Zeitung Berlin

Allg med Ztg —Allgemeine medizinische Zeitung mit Berücksichtigung des Neuesten und Interessantesten der allgemeinen Naturkunde Altenburg Germany

Allg mil -arztl Ztg —Allgemeine militär-ärztliche Zeitung Vienna

Allg statist Arch —Allgemeines statistisches Archiv Jena Germany

Allg Wien med Ztg —Allgemeine Wiener medicinische Zeitung Vienna

Allg Ztg f Chir —Allgemeine Zeitung für Chirurgie, innere Heilkunde und ihre Hülfswissenschaften Augsburg Germany

Allg.Ztg f Mil -Aerzte —Allgemeine Zeitung für Militair Aerzte Brunswick, Germany

Allmavenska läk-tidning —Allmänna svenska läkartidningen Stockholm Sweden

Am Ann Deaf —American Annals of the Deaf Washington D C

Am Anthrop —American Anthropologist Washington D C

Am Chem J American Chemical Journal Baltimore [Merged in J Am Chem Soc]

***Am Diabetes A ,Proc** See Proc Am Diabetes A

Am Druggist. —American Druggist New York

Am J Cancer —American Journal of Cancer New York [Ceased publication]

Am J Care Cripples American Journal of Care for Cripples New York

Am J Electroth & Radiol —American Journal of Electrotherapeutics and Radiology New York [Continued as Physical Therap]

Am J Insan American Journal of Insanity Utica N Y [Continued as Am J Psychiat]

Am J M Jurisp The American Journal of Medical Jurisprudence Boston [Ceased publication]

Am J M Sc American Journal of the Medical Sciences Philadelphia

Am J Physiol Optics American Journal of Physiological Optics Southbridge Mass

Am J Police Sc American Journal of Police Science Chicago

Am J Psychiat American Journal of Psychiatry Baltimore

Am J School Hyg American Journal of School Hygiene Worcester Mass

Am M Times American Medical Times New York

Am M Recorder —American Medical Recorder Philadelphia [Merged in Am J M Sc]

Am Med American Medicine New York

Am Physician American Physician Rahway N J [Merged with M Counselor]

***An Acad med Medellin** —Anales de la Academia de medicina de Medellín Bedout Medellín

An Asoc quím argent —Anales de la Asociación química argentina Buenos Aires

***An Cáted de pat y clin tuberc** —Anales de la Cátedra de patología y clínica de la tuberculosis Avenida Vélez Sársfield 405 Buenos Aires

An de cien méd —Anales de ciencias médicas Madrid

***An Fac med Bahia** —Anais da Faculdade de medicina da Bahia Salvador Bahia Brasil

An de hig pub —Anales de higiene pública y medicina legal Buenos Aires Argentina

An Hosp de Santa Cruz y San Pablo.—Anales del Hospital de la Santa Cruz y San Pablo Barcelona Spain

***An d Inst med exper Valencia** —Anales del Instituto de medicina experimental de Valencia Valencia España

***An Inst med trop** —Anais do Instituto de medicina tropical Lisboa Portugal

***An Inst modelo de clín méd** —Anales del Instituto modelo de clinica médica Universidad de Buenos Aires Buenos Aires

***An med ,Barcelona** —Anales de medicina Boletín mensual de la Academia de ciencias médicas segunda época Vía Layetana 31 Barcelona

***An méd Concepción** —Anales médicos de Concepción Sociedad médica de Concepción Casilla 33 Concepción Chile

***An neuro-psiquiat d Frenocom mujeres Bogotá** —Anales neuro-psiquiatricos del Frenocomio de mujeres de Bogotá Calle 5ª No 12 A 25 Bogotá

An de oftal.—Anales de oftalmología Mexico, D F

An r Acad.de med—Anales de la real Academia de medicina. Madrid.

An.Soc.ginec españ—Anales de la Sociedad ginecológica española Madrid

Anat.Hefte—Anatomische Hefte Referate und Beiträge zur Anatomie und Entwicklungsgeschichte. Erste Abteilung: Arbeiten aus anatomischen Instituten Wiesbaden, Germany [See also Ergebn d Anat u Entwcklngsgesch]

***Ann Am.Acad Polit & Social Sc**—Annals of the American Academy of Political and Social Science 3457 Walnut St, Philadelphia 4

Ann Applied Biol—Annals of Applied Biology London

Ann d Chem—Annalen der Chemie (Liebig's) Leipzig

Ann de chim—Annales de chimie, ou *recueil* de mémoires concernant la chimie et les arts qui en *dépendent* Paris [Continued as Ann de chim et phys]

Ann de chim et phys—Annales de chimie et de physique Paris

Ann Clin Med—Annals of Clinical Medicine Baltimore [Continued as Ann Int Med]

Ann di clin med—Annali di clinica medica Palermo Italy

Ann clin de Montpellier—Annales cliniques de Montpellier Montpellier, France

Ann Distinguished Serv Found Optom—Annals of the Distinguished Service Foundation of Optometry Cambridge Mass

***Ann Fac med e chir ,Bari**—Annali della Facoltà di medicina e chirurgia R Università di Bari, Bari, Italia

Ann d Geburtsh.—Annalen der Geburtshülfe uberhaupt und der Entbindungsanstalt zu Marburg insbesondere Leipzig

Ann f d ges Heilk—Annalen fur die gesammte Heilkunde Karlsruhe, Germany

Ann Gynaec.& Pediat—Annals of Gynaecology and Pediatry Philadelphia Boston

Ann de gynéc et d'obst—Annales de gynécologie et d obstetrique Paris

Ann Inst océanograph—Annales de l'Institute océanographique Paris

Ann d Ist Maragliano p la cura d tuberc—Annali dell Istituto Maragliano per lo studio e la cura della tubercolosi e di altri malattie infettive Genoa, Italy

Ann M Hist—Ceased publication

Ann d mal de la peau—Annales des maladies de la peau et de la syphilis Paris

***Ann méd -chir de l'Hop Sainte-Justine,Montreal**—Les *annales médico-chirurgicales* de l'Hôpital Sainte Justine de Montréal Hôpital Sainte Justine Montréal

Ann de méd et chir inf—Annales de médecine et chirurgie infantiles Paris

Ann de méd lég—Annales de médecine légale de criminologie, et de police scientifique, médecine sociale et toxicologie Paris

Ann de méd et de pharm colon—Annales de médecine et de pharmacie coloniales Paris

Ann.méd -psychol—Annales médico-psychologiques Paris

Ann Missouri Botan Garden—Annals of the Missouri Botanical Garden St Louis

Ann di nevrol—Annali di nevrologia Turin Palermo Italy

***Ann New York Acad Sc**—Annals of the New York Academy of Sciences American Museum of Natural History Central Park West at 79th St New York 24

Ann Ophth & Otol—Annals of Ophthalmology and Otology St Louis

Ann d Phys u Chem—Annalen der Physik und Chemie Leipzig

Ann Soc belge de méd trop—Annales de la Société belge de médecine tropicale Anvers

Ann Soc d'hydrol méd de Paris—Annales de la Société d hydrologie médicale de Paris

Anthropologie,Paris.—L'anthropologie Paris

Apoth -Ztg —Apotheker Zeitung Berlin

Arb a d Geb d path Anat Inst zu Tubingen —Arbeiten auf dem Gebiete der pathologischen Anatomie und Bacteriologie aus dem pathologisch anatomischen Institut zu Tübingen Brunswick Germany

Arb a d k Gsndhtsamte —Arbeiten aus dem kaiserlichen Gesundheitsamte Berlin

Arb a d neurol Inst a d Wien Univ —Arbeiten aus dem neurologischen Institute (Institut für Anatomie und Physiologie des Centralnervensystems) an der Wiener Universität Vienna

Arb a d Reichsgsndhtsamt —Arbeiten aus dem Reichsgesundheitsamte Berlin

Arch f Anat —Archiv für Anatomie Anatomische Abteilung des Archives fur Anatomie und Physiologie [Title after 1912 Arch f Anat u Entwcklngsgesch] Leipzig

Arch de anat —Archivo de anatomia e do anthropologia Lisbon Portugal

Arch f Anat u Physiol —Archiv für Anatomie und Physiologie Leipzig [Continued as Arch f Anat Physiol u wissensch Med]

Arch f Anat ,Physiol u wissensch Med —Archiv für Anatomie Physiologie und wissenschaftliche Medicin Leipzig

Arch f Anthropol —Archiv für Anthropologie Brunswick Germany

Arch per l'antropol —Archivio per l antropologia e la etnologia Florence Italy

***Arch belges méd.sociale et d hyg** —Archives belges de médecine sociale et d hygiène et revue de pathologie et de physiologie du travail 2 Place Royale Bruxelles

Arch brasil de psychiat —Archivos brasileiros de psychiatria neurologia e sciencias afines Rio de Janeiro

Arch clin ital —Archivio clinico italiano Rome

Arch.Diagnosis —Archives of Diagnosis New York (Ceased publication)

Arch franç de path gen et exper —Archives françaises de pathologie générale et expérimentale et d anatomie pathologique Paris

Arch f Frauenk u Eugenik —Archiv für Frauenkunde und Eugenik Wurzburg Germany

Arch gén de chir —Archives générales de chirurgie Paris

Arch gen de med —Archives générales de médecine Paris

***Arch ginec y obst** —Archivos de ginecología y obstetricia Organo de la Sociedad ginecotocológica del Uruguay y de la Seccional de ginecología y obstetricia del H Pereira Rossell Av Garibaldi 2087 Montevideo

***Arch Hyg** —Archeia Hygienis Minister of Hygiene Panepistimiou St Athens

Arch internat de chir —Archives internationales de chirurgie Ghent Belgium

Arch internaz.di med e chir.—Archivio internazionale di medicina e chirurgia Naples

Arch ital de biol —Archives italiennes de biologie Pisa [Ceased publication]

Arch ital di pediat —Archivio italiano di pediatria Naples

Arch ital di sc med colon —Archivio italiano di scienze mediche coloniale Modena

Arch d Julius Klaus- Stiftg f Vererbgsforsch —Archiv der Julius Klaus Stiftung für Vererbungsforschung Sozialanthropologie und Rassenhygiene Zurich Switzerland

Arch f Laryng u Rhin —Archiv für Laryngologie und Rhinologie Berlin

Arch de lepra —Archivos de lepra Bogotá Colombia

Arch méd -chir de Province —Archives médico-chirurgicales de Province Tours France [Ceased publication]

Arch de méd expér et d'anat path —Archives de médecine expérimentale et d anatomie pathologique Paris

Arch med de Toulouse —Archives médicales de Toulouse Toulouse France

Arch mens d obst et de gynéc —Archives mensuelles d obstétrique et de gynécologie Paris

*****Arch mex ven y dermat** —Archivos mexicanos de venereo y dermatología Organo oficial de la Asociación nacional de venereología Sonora No 136 México D F

Arch f mikr Anat —Archiv fur mikroskopische Anatomie Bonn Germany

Arch de neurobiol —Archivos de neurobiología Madrid

*****Arch neurocir ,Buenos Aires** —Archivos de neurocirugía Paraguay 2701 Buenos Aires

Arch de oftal hispano-am —Archivos de oftalmologia hispano-americanos Barcelona Spain

Arch f Ohrenh —Archiv fur Ohrenheilkunde Leipzig [Continued as Arch f Ohren-, Nasen u Kehlkopfh]

Arch f Ohren-,Nasen- u Kehlkopfh —Archiv fur Ohren Nasen und Kehlkopfheilkunde sowie die angrenzenden Gebiete Berlin

Arch Otol —Archives of Otology New York

Arch d Pharm —Archiv der Pharmacie Berlin

Arch f phys -diatet Therap —Archiv fur physikal sch diatetische Therapie in der ärztlichen Praxis Berlin

Arch de physiol norm et path —Archives de physiologie normale et pathologique Paris

Arch d prakt Heilk —Archiv der praktischen Heilkunde fur Schles en und Sudpreussen Breslau Germany

A- l

A Biolog e

Arch Rio-Grand de med —Archivos Rio Grandenses de medicina Porto Alegre Brazil

Arch Roentg Ray —Archives of the Roentgen Ray London [Contin ied as Arch Rad ol & Electroth]

Arch d sc biol —Archives de sciences biologiques publiées par l Institut impérial de médecine expérimentale à St Pétersbourg Leningrad

*****Arch Soc estud clin Habana** —Archivos de la Sociedad de estud os clínicos de la Habana Manzana de Gomez No 224 Habana

Arch f soziale Hyg u Demog —Archiv fur soziale Hygiene und Demographie Berlin [Ceased publication]

Arch suisses d anthropol gen —Archives suisses d anthropologie générale Geneva Switzerland

*****Arch tisiol** —Archivio di tis ologia Istituto Sanatoriale Principi di Piemonte Napol

Arch urol de la Clin de Necker —Archives urologiques de la Clin que de Necker Paris

Arch f wissensch u prakt Thierh —Archiv fur wissenschaftliche und praktische Thierheilkunde Berlin

Arch f Zellforsch —Archiv fur Zellforschung Leipzig

Army & Navy J —Army and Navy Journal Washington D C

*****Arq brasil neuriat e psiquiat** —Arquivos brasileiros de neuriatria e psiquiatria Orgao oficial da Sociedade de neurologia psiquiatria e medicina legal Rua Ramiro Magalhaes 521 Rio de Janeiro

*****Arq clin** —Arquivos de clínica Rua Senador Dantas 20 Rio de Janeiro

*****Arq Inst Penido Burnier** —Arquivos do Inst tuto Penido Burnier Dr Guedes de Mélo Filho Instituto Penido Burnier Camp nas Estado de Sao Paulo

*****Arq Inst quim biol estad Minas Gerais** —Arquivos do Instituto quimico-biológico do estado de Minas Gerais Caixa Postal 26 Belo Horizonte

***Arq Soc med leg e criminol S Paulo.**—Arquivos da Sociedade de medicina legal e criminologia de S Paulo Caixa Postal 2658 São Paulo

Ars méd ,Barcelona—Ars médica, revista de medicina, cirugía y especialidades Barcelona Spain

Art méd d'Anvers.—L'art médical d Anvers Antwerp, Belgium

Arte ostet.—L arte ostetrica Giornale per i medici e per le levatrici Milan Italy

Atlanta J -Rec Med—Atlanta Journal Record of Medicine Atlanta Ga

Attività med ital—Attività medica italiana Pisa

Australasian M Gaz.—Australasian Medical Gazette Sydney Australia [Merged in Australian M J forming M J Australia]

Australian M J—Australian Medical Journal Melbourne [Merged in Australasian M Gaz to form M J Australia]

Balneol Centr -Ztg—Balneologische Centralzeitung Berlin

Beihefte z.Arch f Schiffs- u Tropen-Hyg—Beihefte zum Archiv für Schiffs und Tropen Hygiene Leipzig

Beihefte z.Ztschr f ang Psychol—Beihefte zur Zeitschrift für angewandte Psychologie und psychologische Sammelforschung Leipzig

Beitr z.chem Physiol u Path—Beiträge zur chemischen Physiologie und Pathologie (Hofmeister s) Zeitschrift für die gesamte Biochemie Brunswick Germany

Beitr z.exper Therap—Beiträge zur experimentellen Therapie Berlin

Beitr z.Geburtsh u Gynäk—Beiträge zur Geburtshülfe und Gynäkologie Berlin

Beitr z.Physiol—Beiträge zur Physiologie Berlin

Beitr z prakt Augenh—Beiträge zur praktischen Augenheilkunde Berlin Leipzig

Beitr z.prakt Heilk—Beiträge zur praktischen Heilkunde mit vorzüglicher Berücksichtigung der medicinischen Geographie Topographie und Epidemiologie Leipzig

Ber d deutsch chem Gesellsch—Berichte der deutschen chemischen Gesellschaft Berlin

Ber d deutsch pharm Gesellsch—Berichte der deutschen pharmaceutischen Gesellschaft Berlin

Ber d Gsndhtsrath in Zurich—Berichte des Gesundheitsrathes an d e hohe Regierung in Zürich Zurich Switzerland

Berl klin Wchnschr—Berliner klinische Wochenschrift

Berl Klinik—Berliner Klinik Sammlung klinischer Vorträge

Berl med Centr -Ztg—Berliner medicinische Central Zeitung [Continued as Allg med Centr Ztg]

Berl tierarztl Wchnschr—Berliner tierärztliche Wochenschrift

Berl zahnärztl Vereinsbl—Berliner zahnärztliches Vereinsblatt

Bibliot.d ges.med Wissensch—Bibliothek der gesammten medicinischen Wissenschaften für praktische Aerzte und Specialärzte Vienna Leipzig

Bibliot d prakt Heilk—Bibliothek der praktischen Heilkunde Jena Germany Berlin

***Biokhimiya**—Biokhimiya Akademkniga Pushkinskaya 23 Moskva

Biol med ,Milano—Biologie medicale Milan Italy [Ceased publication]

Biol.Zentralbl—Biologisches Zentralblatt Leipzig

Biometrika—Biometrika Cambridge England

Birth Control Rev—Birth Control Review New York

Bl f Gsndhtspflg—Blätter fur Gesundheitspflege Zurich, Switzerland [Continued as Schweiz Bl f Gsndhtspflg]

Bol d.Cons sup de salub—Boletín del Consejo superior de salubridad San Salvador, El Salvador

*Bol d Hosp oftal de Ntra Sra de la Luz —Boletín del Hospital oftalmológico de Ntra Sra de la Luz Ezequiel Montes, 135, México, D F

Bol d Inst pat —Boletín del Instituto patológico Mexico, D F

Bol de med y cir —Boletín de medicina y cirugía Madrid

Bol san Dep nac hig ,Buenos Aires —Boletín sanitario del Departamento nacional de higiene Buenos Aires

*Bol Sec san policía nac —Boletín de la Sección de sanidad de la policía nacional Oquendo y Estrella, Habana

*Boll Soc ital di med e ig trop.—Bollettino della Società italiana di medicina e igiene tropicale (Sezione Eritrea) L'Ospedale "Regina Elena ' di Asmara, Eritrea

*Brasil méd -cir.—Brasil médico-cirúrgico Caixa Postal 3685, Rio de Janeiro

Brit & Colon Druggist —British and Colonial Druggist London

Brit & For M Rev —British and Foreign Medical Review London

Brit J Child Dis —British Journal of Children's Diseases London [Ceased publication July 1944]

Brit J Inebr —British Journal of Inebriety London

Brit J Rheumat —The British Journal of Rheumatism Baillière, Tindall & Cox, 8 Henrietta St , London, W C 2 (Temporarily suspended)

Bull Am Acad Med —Bulletin of the American Academy of Medicine Easton, Pa [Continued as J Social Med]

Bull Am Cancer Soc —Bulletin of the American Cancer Society, Inc New York [Ceased publication]

Bull Basic Sc Research —Bulletin of Basic Science Research Cincinnati Ohio [Temporarily discontinued, 1935]

*Bull Charlotte Mem Hosp —Bulletin of the Charlotte Memorial Hospital The Heineman Foundation, Charlotte, N C

Bull gén de thérap —Bulletin général de thérapeutique médicale et chirurgicale Paris

Bull d'histol appliq à la physiol —Bulletin d histologie appliquée à la physiologie et à la pathologie et de technique microscopique Lyon

*Bull Inst d'hyg Maroc —Bulletin de l Institut d hygiène du Maroc Editions Felix Moncho, Rue de la Mamounia, Rabat, Maroc

Bull Jackson Mem Hosp —Bulletin of the Jackson Memorial Hospital [Ceased publication]

Bull Manila M Soc —Bulletin of the Manila Medical Society Manila P I

Bull Med & Chir Fac Maryland —Bulletin of the Medical and Chirurgical Faculty of Maryland Baltimore

Bull méd de Quebec —Le Bulletin médical de Quebec

Bull et mem Soc anat de Paris —Bulletins et mémoires de la Société anatomique de Paris

Bull et mem Soc d chirurgiens de Paris —Bulletins et mémoires de la Société des chirurgiens de Paris

[illegible] of New York Fort [illegible]

Bull Soc anat de Paris —Bulletin de la Société anatomique de Paris [Continued as Bull et mém Soc anat de Paris]

Bull Soc belge de gynéc et d'obst —Bulletin de la Société belge de gynécologie et d'obstétrique Brussels

Bull Soc franç d urol —Bulletin de la Société française d urologie Paris. [Ceased publication]

Bull Soc de pharm de Paris —Bulletin de la Société de pharmacie de Paris

Bull Soc d sc d'Alger —Bulletin de la Société des sciences physiques naturelles et climatologiques d Alger Algiers Algeria

Bull Soc scient d'hyg aliment —Bulletin de la Société scientifique d hygiene alimentaire et d alimentation rationnelle de l homme Paris.

Bull d trav Soc de pharm de Bordeaux Bulletin des travaux de la Société de pharmacie de Bordeaux Bordeaux France

Bull War Med —Bulletin of War Medicine London [Ceased publication]

Caducee —Le caducée Journal de chirurgie et de médecine d armée Paris

Cairo Sc J —Cairo Scientific Journal Alexandria Egypt

California M & S Reporter —California Medical and Surgical Reporter Los Angeles

Canad J Med & Surg —Canadian Journal of Medicine and Surgery Toronto [Ceased publication]

Canad J Ment Hyg —Canadian Journal of Mental Hygiene Toronto

Canad Pract & Rev —Canadian Practitioner and Review Toronto [Consolidation of Canad Pract and Canad M Rev]

Canada Lancet —Canada Lancet Toronto

Canada M Rec Canada Medical Record Montreal

Cancer, Bruxelles Le cancer publié le Bulletin de la Société belge de cancérologie Brussels [Ceased publication]

Centralbl See also Zentralbl

Centralbl f allg Gsndhtspflg —Centralblatt für allgemeine Gesundheitspflege Bonn Germany

Centralbl f allg Path u path Anat Centralblatt fur allgemeine Pathologie und pathologische Anatomie Jena Germany [Continued as Zentralbl f allg Path u path Anat]

Centralbl f Bakt —Centralblatt für Bakteriologie Parasitenkunde und Infectionskrankheiten Jena Germany [Continued as Zentralbl f Bakt]

Centralbl f d Grenzgeb d Med u Chir —Centralblatt für die Grenzgebiete der Medizin und Chirurgie Jena Germany

Centralbl f d Krankh d Harn- u Sex -Org —Centralblatt für die Krankheiten der Harn und Sexual Organe Leipzig [Combined with Monatsbl f Urol to form Ztschr f Urol]

Centralbl f d med Wissensch —Centralblatt fur die medizinischen Wissenschaften Berlin

Centralbl f Nervenh u Psychiat —Centralblatt für Nervenheilkunde und Psychiatrie Coblenz Germany Leipzig [Continued as Zentralbl f Nervenh u Psychiat]

Centralbl f prakt Augenh —Centralblatt für praktische Augenheilkunde Leipzig

Centralbl f Stoffwechsel- u Verdauungskr —Centralblatt fur Stoffwechsel und Verdauungs Krankheiten Göttingen Germany [Continued as Zentralbl f d ges Physiol u Path d Stoffwechs]

***Ceylon Health News** —Ceylon Health News Department of Medical and Sanitary Services P O Box No 500 Colombo Ceylon

Charité-Ann —Charité Annalen Berlin

Charlotte M J —Charlotte Medical Journal

Chem Abstr —Chemical Abstracts Easton, Pa

Chem News —Chemical News and Journal of Physical Science London

Chem Zentralbl —Chemisches Zentralblatt Leipzig

Chicago M Rec.—Chicago Medical Recorder (Continued as Radiol Rev & Chicago M Rec)

Child Development —Child Development Abstracts and Bibliography Baltimore

Child Study —Child Study New York

Chir dell'ernia —Chirurgia dell ernia Naples

*__Cien e invest__ —Ciencia e investigacion San Martín 427 Buenos Aires

*__Ciencia__ —Ciencia Revista hispano americana de ciencias puras y aplicadas Altamirano 127, Mexico D F

Cincinnati M J —Cincinnati Medical Journal

*__Cir d ap locom__ —Cirugía del aparato locomotor Atocha 115 Madrid

Cleveland M J —Cleveland Medical Journal

Clifton M Bull —Clifton Medical Bulletin Clifton Springs N Y

Clin chir —Clinica chirurgica Milan Italy

Clin mod —Clinica moderna Florence Italy

Clin opht —La clinique ophtalmologique Paris

*__Clin Proc Child Hosp__ —Clinical Proceedings of the Children s Hospital Mrs Olive Tabb, Exec -Sec'y Children s Hospital Washington D C

*__Clinica,Bologna__ —Clinica L. Cappelli Via Farini 6 Bologna

Clinics —Clinics (Ceased publication)

Clinique,Chicago —The Clinique

Clinique,Montreal —La Clinique

Columbus M J —Columbus Medical Journal

Compt -rend.Acad roy de méd de Belgique —Compte rendu des travaux de l Académie royale de médecine de Belgique Brussels

*__Compt rend Acad d sc URSS__ —Comptes rendus (doklady) de l Académie des sciences de l URSS Volkhonka 14 Moskva 19

Compt.rend de l'Assoc d anat —Comptes rendus de l Association des anatomistes Paris, Nancy, France

*__Compt rend d trav du lab Carlsberg,serie chim__ —Comptes rendus des travaux du laboratoire Carlsberg série chimique Carlsberg Laboratory Copenhagen

*__Cong méd domin centen ,mem__ —Congreso médico dominicano del centenario memoria Santiago Republica Dominicana

Contrib Embryol —Contributions to Embryology Washington D C

Cor -Bl f.schweiz Aerzte —Correspondenz Blatt fur schweizer Aerzte Basel Switzerland

Cor.-Bl f Zahnarzte —Correspondenz Blatt fur Zahnärzte Berlin

Cornell Vet —Cornell Veterinarian Ithaca N Y

Cron med mex —Crónica médica mexicana Mexico D F

Crón oftal —Crónica oftalmológica Cádiz Spain

Dementia Præcox Stud —Dementia Præcox Studies Chicago

Dental Cosmos —Ceased publication

Dental Digest —Dental Digest New York

Dental Items Interest —Dental Items of Interest Brooklyn

Dental Rev —Dental Review Chicago

Dermat Wchnschr —Dermatologische Wochenschrift Leipzig

Detroit M J —Detroit Medical Journal

Deutsche Klin —Deutsche Klinik am Eingange des zwanzigsten Jahrhunderts in akademischen Vorlesungen Berlin, Vienna
Deutsche Med -Ztg —Deutsche Medizinal Zeitung Berlin
Deutsche mil -arztl Ztschr —Deutsche militärärztliche Zeitschrift Berlin
Deutsche Monatschr f Zahnh —Deutsche Monatsschrift für Zahnheilkunde Leipzig
Deutsche zahnarztl Ztg —Deutsche zahnärztliche Zeitung Munich Germany
Deutsche Ztschr f Thiermed —Deutsche Zeitschrift für Thiermedizine und vergleichende Pathologie Leipzig
Dominion M Monthly —Dominion Medical Monthly Toronto
Epidemiol Inform Bull —Epidemiological Information Bulletin [Ceased publication]
Epidemiol Rep ,League of Nations —Monthly Epidemiological Report of the Health Section of the Secretariat, League of Nations Geneva Switzerland [Ceased publication]
Epilepsia Epilepsia Amsterdam Leipzig
Ergebn d Anat u Entwcklngsgesch Ergebnisse der Anatomie und Entwicklungsgeschichte Wiesbaden Germany [Forms 2 Abteilung of Anat Hefte]
Eugenics Rev Eugenics Review London
Evolution méd -chir —*Evolution médico-chirurgicale Paris*
***Farmacoterap actual** —Farmacoterapia actual Alberto Aguilera 10 Madrid
Förh svenska lak -sallsk sammank Förhandlingar vid svenska läkare-sällskapets sammankomster Stockholm Sweden [Supplement to Hygiea Stockholm]
Folia gynaec —Folia gynaecologica Pavia Italy
Folia neuro-biol —Folia neuro-biologica Leipzig
***Folia oto-laryng orient** —Continued as Acta oto-laryng orient
Folia serol —Folia serologica Leipzig [Continued as Ztschr f Chemotherap]
Folia urol —Folia urologica Internationales Archiv fur die Krankheiten der Harnorgane Leipzig
***Fontilles** —Fontilles Trabajos y estudios realizados en la Colonia-Sanatorio de San Francisco de Borja para leprosos Plaza Tetuán 18 bajo, Valencia España
***Friuli med** —Il Friuli medico Biblioteca dell Ospedale civile Udine Italia
***Gac med ,Lima** —Gaceta médica José Gálvez No 192 Lima
Gastrol polska —Gastrologja polska Warsaw, Poland
Gaz hebd de med —Gazette hebdomadaire de médecine et de chirurgie Paris
Gaz hebd d sc méd de Bordeaux —Gazette hebdomadaire des sciences médicales de Bordeaux Bordeaux France
Gaz lek —Gazeta lekarska Warsaw Poland
Gaz d mal inf —Gazette des maladies infantiles et d obstétrique Paris
Gaz med da Bahia —Gazeta medica da Bahia Bahia Brazil
Gaz méd belge —Gazette médicale belge Liége
Gazz med —Gazzetta medica (Medical Gazette) New York
Gazz med napolet —Gazzetta medica napoletana Naples
Gazz med di Torino —Gazzetta medica di Torino Turin, Italy
Gegen d Tuberk —Gegen die Tuberkulose Berne Switzerland
Ginek polska —Ginekologja polska Warsaw, Poland
***Gior ital chir** —Giornale italiano di chirurgia V Idelson Via de Marinis 19 Napol
***Gior di med** —Giornale di medicina R Clinica Medica Policlinico Palermo
Gior di med ferrov —Giornale di medica ferroviaria Prato Italy

Gior p la morfol d uomo —Giornale per la morfologia dell uomo e dei primati Pavia, Italy

Grèce méd.—Grèce médicale Athens

Gulf States J Med & Surg —Gulf States Journal of Medicine and Surgery and Mobile Medical and Surgical Journal Mobile Ala

Gynæc helvet —Gynæcologia helvetica Geneva Switzerland

Gynak Rundschau —Gynäkologische Rundschau Berlin Vienna

Gyogyszereszi hetil.—Gyógyszerészi hetilap Budapest

*Health & Med —Health & Medicine P O Box 1033 Johannesburg

Health Officer —Ceased publication

Hereditas —Hereditas Lund Sweden

Hist.Acad roy d sc —Histoire de l Académie royale des sciences Paris

Hist.Soc roy de med —Histoire de la Société royale de médecine avec les mémoires de médecine et de phys que médicale tirés des registres de cette société Paris

Hora med ,Rio de Janeiro —Hora médica do Bras l Rio de Janeiro

Hyg Bl ,Berlin —Hygienische Blätter Berlin

Hyg gen et appliq —Hygiène générale et appliquée Paris

Hyg mod —Hygiène moderne Paris

Hyg Rundschau —Hygienische Rundschau Berlin

Hygea —Hygea Karlsruhe Germany

*Hyghionomika —Hyghionomiki 70 Patission St , Athens

Hygiene —Hygiene London

Iberia méd —Iberia médica Madrid

Idrol e climat.—Idrologia e climatologia e la terapia fisica Turin Florence Italy

Igiene mod —Igiene moderna Genoa Italy

*Igiene e san pub —Igiene e sanità pubblica Rivista mensile scientifico-pratica Rione Carmine 3ª traversa Pastore Palazzo Primavera Salerno

Igiene d scuola —Igiene della scuola revista mensile Genoa Italy

Igiene e vita —Igiene e la vita Turin Italy

Incurabili —Incurabili Naples

Indépend med —Indépendance médicale Montreal

Indian J.Med —Indian Journal of Medicine Calcutta

Indianapolis M J —Indianapolis Medical Journal Indianapolis Ind (Continued as M Arts & Indianapolis M J)

Indust Bull —Industrial Bulletin Albany N Y

*Indust Hyg Found Tr Manag Sect —Industrial Hygiene Foundation Transactions Management Section Tenth Annual Meeting 4400 Fifth Ave Pittsburgh 13

*Inform.enferm ven —Información sobre enfermedades venéreas Oficina sanitaria panamericana Versalles 49 México D F

Intercolon M J Australasia —Intercolonial Medical Journal of Australasia Melbourne Australia (Continued as Australian M J)

Internat Centralbl f d ges Tuberk -Forsch —Internationales Centralblatt für die gesamte Tuberkulose Forschung Würzburg Germany

Internat Clin —Continued as Clinics

Internat Dent J —International Dental Journal New York Philadelphia

Internat Dermat Cong Tr —International Dermatological Congress Official transactions New York.

Internat J Individ Psychol — [illegible] Journal of Individual Psychology. [illegible]

Internat J Med & Surg — [illegible] Journal of Medicine and Surgery and [illegible] [illegible]

Internat J Surg — [illegible] New York. Continued as [illegible] J [illegible]

Internat Monatschr f Erforsch d Alkoholism — Internationale Monatsschrift zur Erforschung des Alkoholismus und [illegible] der Trinksitten. Basel, Switzerland.

Internat Rev d ges Hydrobiol u Hydrograph — Internationale Revue der gesamten Hydrobiologie und Hydrographie. [illegible]

Internat Ztschr f Individualpsychol — Internationale Zeitschrift für Individualpsychologie. [illegible] (Ceased [illegible])

Internate M J — [illegible] St. Louis, Mo.

Italia san — [illegible]

J Advanced Therap — Journal of Advanced Therapeutics. New York. Continued as Am J [illegible]

J Am Soc Heat & Vent Engin — Journal of the American Society of Heating and Ventilating Engineers. New York.

J Am Soc Psych Research — Journal of the American Society for Psychical Research. New York.

J de l'anat et physiol — Journal de l'anatomie et de la physiologie normales et pathologiques de l'homme et des animaux. Paris.

J Canad M Serv — The Journal of the Canadian Medical Services. (Ceased publication.)

J Chem Soc London — Journal of the Chemical Society of London.

J Chemotherapy — Journal of Chemotherapy. Philadelphia. (Ceased publication.)

J de chim phys — Journal de chimie physique. Paris.

J d Chir u Augenh — Journal der Chirurgie und Augenheilkunde. Berlin.

J Juvenile Research — Journal of Juvenile Research. Claremont, Calif. (Ceased publication.)

J f Kinderkr — Journal für Kinderkrankheiten. Berlin.

J de méd, chir et pharmacol — Journal de médecine, de chirurgie et de pharmacologie. Brussels, Belgium.

J Ment Path — Journal of Mental Pathology. New York.

J Metab Research — Journal of Metabolic Research. Morristown, N. J.

J Nat Proct A — The Journal of the National Proctologic Association. 159 Forest Ave., Oak Park, Ill.

J de neurol et hypnol — Journal de neurologie et d'hypnologie. Paris.

J New Mexico M Soc — Journal of the New Mexico Medical Society. Albuquerque.

J Organotherapy — Journal of Organotherapy. New York.

J Outdoor Life — Journal of Outdoor Life. New York.

J pediat, Rio de Janeiro — Jornal de pediatria. Av. Graça Aranha 226. Rio de Janeiro.

J de pharm et chim — Journal de pharmacie et de chimie. Paris.

J de physiol expér — Journal de physiologie expérimentale et pathologique. Paris.

J d pract Arznk u Wundarznk — Journal der practischen Arzneykunde und Wundarzneykunst (Hufeland's). Jena, Germany. Berlin.

J d pract Heilk — Journal der practischen Heilkunde. Berlin.

J Röntg Soc — Journal of the Röntgen Society. London.

J Roy Anthrop Inst Great Britain & Ireland — Journal of the Royal Anthropological Institute of Great Britain and Ireland. London.

J Roy Micr Soc —Journal of the Royal Microscopical Society London
J d sc med de Lille —Journal des sciences médicales de Lille Lille, France
J Sexol & Psychanal —Journal of Sexology and Psychanalysis New York
J Sociol Med —Journal of Sociologic Medicine Easton Pa
J f Zahnh —Journal für Zahnheilkunde Breslau Germany Berlin
Jahrb d Hamb Staatskrankenanst —Jahrbucher der Hamburgischen Staatskrankenanstalten Leipzig, Hamburg Germany
Jahrb f Mil Aerzte —Jahrbuch fur Militar Aerzte Vienna
Jahrb d pract Med —Jahrbuch der practischen Medicin Berlin
Jahrb f prakt Heilk —Jahrbucher fur praktische Heilkunde Tubingen, Germany
Jahrb f sex Zwischenstufen —Jahrbuch fur sexuelle Zwischenstufen Leipzig
Jahresb u d Fortschr a d Geb d Chir —Jahresbericht uber die Fortschritte auf dem Gebiete der Chirurgie Wiesbaden Germany
Jahresb u d Fortschr d ges Med —Jahresbericht uber die Fortschritte der gesammten Medicin Erlangen Germany
Jahresb u d Fortschr d Thierchem —Jahresbericht uber die Fortschritte der Thierchemie (Maly's) Wiesbaden Germany
Jahresb u d ges Ophth —Jahresbericht über die gesamte Ophthalmologie Berlin
Jahresb u d Leistung d ges Med —Jahresbericht uber die Leistungen und Fortschritte der gesamten Medizin Berlin
Japan M World —Japan Medical World Tokyo
Japan Ztschr f Dermat u Urol —Japanische Zeitschrift fur Dermatologie und Urologie Tokyo
Japan Ztschr f Verdauungs-Krankh —Japanische Zeitschrift fur Verdauungs Krankheiten Tokyo
Kindertuberk —Kindertuberkulose Munich Germany
Klin Beitr z Gynak —Klinische Beitrage zur Gynakologie Breslau Germany
Klin -therap Wchnschr —Klinisch therapeutische Wochenschrift Vienna Berlin
***Laboratorio** — Laboratorio Análisis clínicos bacteriología inmunología parasitología hematología anatomía patologica-química clínica Gran Vía 27 Granada
***Lav d Ist anat e istol pat ,Perugia** —Lavori dell Istituto di anatomia e [illegible] patologica della r Università degli studi di Perugia Perugia, Italia
Lettura oftal —Lettura oftalmologica Pistoia Italy
Leucocyte —Leucocyte Detroit Mich
Liebig's Annalen See Ann d Chem
Liverpool Med -Chir J —Liverpool Medico Chirurgical Journal [illegible] 114 Mt Pleasant, Liverpool 3 (Temporarily discontinued 19[illegible])
Long Island M J —Long Island Medical Journal Brooklyn N Y [illegible] Times & Long Island M J]
***Lumen** —Lumen Agrupación católica universitaria San Miguel [illegible]
M.Advance —Medical Advance Batavia Ill
M Arts & Indianapolis M J —Medical Arts and Indianapolis [illegible] apolis, Ind
M Brief —Medical Brief St Louis Mo (Ceased publication)
M Bull —Medical Bulletin Philadelphia

M Counselor —Medical Counselor Chicago
M Critic & Guide —Medical Critic and Guide New York.
M Fortnightly —Medical Fortnightly St Louis Mo
M Herald —Medical Herald St Joseph Mo
M News. —Medical News London
M Notes & Queries Medical Notes and Queries Lancaster Pa
M Progress. Medical Progress New York
M Rev Medical Review St Louis Mo
M Rev of Rev Medical Review of Reviews New York
M Sentinel Medical Sentinel Portland Ore [Continued as West J Surg]
M Standard Medical Standard Chicago
M Summary Medical Summary Philadelphia.
M & S Rep City Hosp ,Boston Medical and Surgical Reports of the City Hospital of the City of Boston
M Times & Gaz. Medical Times and Gazette London
M Times & Long Island M J Medical Times and Long Island Medical Journal New York
M Tribune *Medical Tribune* New York
M World Medical World Philadelphia
Madras J M Sc Madras Journal of Medical Science Madras India
Mag f d ges.Thierh Magazin fur die gesammte Thierheilkunde Berlin [Continued as Arch f wissensch u prakt Thierh
Malariologia Malariologia Naples
Maryland M J Maryland Medical Journal Baltimore
Massachusetts M J Massachusetts Medical Journal Boston
Bibliot f prakt Aerzte Medicinische Bibliothek für praktische Aerzte Leipzig
chir d med prat Medicina e chirurgia del medico pratico Naples
y cir ,Bogota Medicina y cirugia Apartado 276 Bogotá
led Inf La médecine infantile Paris
Med internat Médecine internationale Paris
Med ital —Medicina italiana Milan
Med latina Medicina latina Madrid
***Med latina Habana** —Medicina latina Cuba 82 Habana
Med -Leg J Medico-Legal Journal New York
Méd mod —Médecine moderne Paris
Med Monatschr Medicinische Monatsschrift New York
Med obozr —Meditsinskoye obozrieniye Moscow
Med prat —Médecine pratique Paris
Med Rev ,Haarlem —Medische Revue Haarlem Netherlands.
Med du trav —La médecine du travail Lyon
Med Weekbl —Medisch Weekblad voor Noord en Zuid Nederland Amsterdam
Medecin stomatol —Médecin stomatologiste Paris.
Mém Acad imp d sc de St Petersburg —Mémoires de l Académie impériale des sciences de St Petersburg Leningrad
Mem d r Accad d sc d Ist di Bologna —Memorie della reale Accademia delle scienze dell Istituto di Bologna Bologna Italy

Mém Fac de méd de Paris —Mémoires de la Faculté de médecine de Paris et de la Société établie dans son sein

Memphis M Monthly —Memphis Medical Monthly

Midi med —Midi médical Toulouse France [Continued as Arch méd de Toulouse]

Midland Drug & Pharm Rev —Midland Druggist and Pharmaceutical Review Columbus Ohio

***Minerva chir** —Minerva chirurgica Casella Postale 491 Torino

Mitt d anthrop Gesellsch in Wien —Mitteilung der anthropologischen Gesellschaft in Wien Vienna

Mitt d Gesellsch f inn Med u Kinderh —Mitteilungen der Gesellschaft für innere Medizin und Kinderheilkunde Vienna

Mitt a d gynaek Klin d O Engstrom in Helsingfors —Mitteilungen aus der gynaekologischen Klinik des Prof Dr Otto Engström in Helsingfors Berlin

Mitt a d med Fak d k Univ Kyushu Fukuoka —Mitteilungen aus der medizinischen Fakultat der kaiserlichen Univers tat Kyushu Fukuoka Japan Kyushu Japan

Mitt d med Gesellsch zu Osaka —Mitteilungen der medizinischen Gesellschaft zu Osaka Osaka Japan

Mitth a d thierarztl Praxis im preuss Staate —Mittheilungen aus der thierärztlichen Praxis im preussischen Staate Berlin [Supplement to Arch f wissensch u prakt Thierh]

Mobile M & S J —Mobile Medical and Surgical Journal [Continued as Gulf States J Med & Surg]

Mois med -chir —Mois médico chirurgical Paris

Monatschr f Krim -Psychol —Monatsschrift fur Kriminalpsychologie und Strafrechtsreform Heidelberg Germany

Monatschr ungar Med —Monatsschrift ungarischer Mediz ner Budapest

Monatsh f prakt Dermat —Monatshefte fur praktische Dermatologie Hamburg Germany Leipzig [Continued as Dermat Wchnschr]

Monatsh f prakt Thierh —Monatshefte fur praktische Thierheilkunde Stuttgart Germany

Monitore zool ital —Monitore zoologico italianao Siena Florence

Monthly Cycl Pract Med —Monthly Cyclopaedia of Practical Medicine Ph ladelphia

Montpellier med —Montpellier méd cal

Montreal M J —Montreal Medical Journal [Merged in Canad M A J]

Morgagni —Morgagni Milan Italy [Ceased publication]

Neurol Centralbl —Neurologisches Centralblatt Leipzig

Neurotherapie —*Neurotherapie* Amsterdam

New England M Monthly —New England Medical Monthly Danbury Conn

New York M Press —New York Medical Press [Merged in Am M Times]

N p 1 g a —N p olog a Naples

Nord ophth Tidskr — Nordisk ophthalmologisk Tidsskrift Copenhagen Denmark
Normandie méd Normandie médicale Rouen France
Norsk tidsskr f mil -med —Norsk tidsskrift for militermedicin Oslo Norway
North Am J Homeop —North American Journal of Homeopathy New York
North Am Pract — North American Practitioner Chicago
Nouv iconog de la Salpêtrière Nouvelle iconographie de la Salpetrière clinique des maladies du système nerveux Paris
Obozr psikhiat ,nevrol Obozrleniye psikhiatrii nevrologii i eksperimentalnoi psichologii (Review of Psychiatrics Neurology and Experimental Psychology) Leningrad
Obshtsh -san obozr —Obshtshestvenno-sanitarnoye obozreniye (Public Health Review) Leningrad
Oesterr Monatschr f Thierh —Oesterreichische Monatsschrift für Thierheilkunde Vienna
Oesterr -ungar Vrtljschr f Zahnh —Oesterreichische-ungarische Vierteljahresschrift für Zahnheilkunde Vienna
Oesterr.Ztschr f Kinderh Oesterreichische Zeitschrift für Kinderheilkunde Vienna
Oesterr.Ztschr f Stomatol Oesterreichische Zeitschrift für Stomatologie Vienna
Oesterr Ztschr f wissensch Veterinark —Oesterreichische Zeitschrift fur wissenschaftliche Veterinärkunde Vienna
Otchot o dieyateln khirurg klin v Mosk Otchot o dieyatelnosti khirurgicheskoi kliniki Iversk of Obshtshinf Syoster Miloserdiya v Moskvie (Report of the Work of the Surgical Clinic of the Iverian Society of Sisters of Mercy in Moscow) Moscow
Pacific Coast J Homœop Pacific Coast Journal of Homœopathy Los Angeles Calif
Pacific M J Pacific Medical Journal San Francisco
Pediatria españ Pediatría española Madrid
Pediatria prat Modena Pediatria pratica Modena Italy [Ceased publication]
Pediatriya Pediatriya Moscow
***Peoria M News** The Peoria Medical News W I Owen Sec y Treas 331 Fulton St, Peoria Ill
Pest med -chir Presse Pester medizinisch-chirurgische Presse Budapest
Pharm Era Pharmaceutical Era New York
Pharm J Pharmaceutical Journal London
Pharm Rec Pharmaceutical Record New York [Merged in Am Druggist]
Pharm.Zentralhalle Pharmaceutische Zentralhalle für *Deutschland Berlin, Dresden* Germany
Pharm Ztg —Pharmaceutische Zeitung Berlin
Pharmakol u therap Rundschau Pharmakologische und therapeutische Rundschau Vienna [Supplement to Wien klin Rundschau]
Philippine J Trop Med — Philippine Journal of Tropical Medicine Manila
Phys & Surg —Physician and Surgeon London
Physical Therap —Physical Therapeutics Elmira N Y
***Plantation Health** —Plantation Health Aiea Oahu T H
Plexus —Plexus Chicago
Pop Sc Monthly —Popular Science Monthly New York [Continued as Scient Monthly]
***Population** —Population Revue trimestrielle de l Institut national d études démographiques Presses Universitaires de France 108 Boulevard Saint Germain, Paris 6ᵉ

Pract.Med & Surg —Practical Medicine and Surgery Austin, Texas
Prag med Wchnschr —Prager medizinische Wochenschrift Prague Czechoslovakia
Prat chir —Pratica chirurgica e delle discipline affini Perugia, Italy
***Prensa méd ,La Paz** —Prensa médica Casilla no 891, La Paz, Bolivia
Presse therm et climat —Presse thermale et climatique Paris
Proc A Life Insur Pres —Proceedings of the Association of Life Insurance Presidents New York.
Proc Am A Adv Sc —Proceedings of the American Association for the Advancement of Science Salem, Mass
Proc Am A Phys & Surg —Proceedings of the American Association of Physicians and Surgeons Indianapolis, Ind
***Proc Am Diabetes A** —Proceedings of the American Diabetes Association 1019 Provident Bank Bldg , Cincinnati
Proc.Am.Federation Organ for Hard of Hearing,Inc —Proceedings of the American Federation of Organizations for the Hard of Hearing, Incorporated Washington, D C
Proc Am Pharm A —Proceedings of the American Pharmaceutical Association Philadelphia
***Proc Am Philos Soc** —Proceedings of the American Philosophical Society Independence Sq , Philadelphia 6
***Proc Anniv Tufts Coll M School** —Proceedings of the Fiftieth Anniversary of Tufts College Medical School Tufts College Boston
Proc Internat Assemb Inter-State Post-Grad M A North America —Proceedings of the International Assembly of the Inter State Post Graduate Medical Association of North America Atlanta Ga
Proc Life Ext Exam —Proceedings of the Life Extension Examiners New York [Ceased publication]
Proc Nat Confer Char —Proceedings of the National Conference of Charities and Correction St Paul
Proc New York Path Soc.—Proceedings of the New York Pathological Society New York
Proc Path Soc Philadelphia —Proceedings of the Pathological Society of Philadelphia
Proc Philadelphia Co M Soc —Proceedings of the Philadelphia County Medical Society
Proc Roy M & Chir Soc —Proceedings of the Royal Medical and Chirurgical Society of London
Proc Roy Soc Edinburgh —Proceedings of the Royal Society of Edinburgh
Proc Third Ann East States Conf Bang's Dis —Proceedings of the Third Annual Eastern States Conference on Bang's Disease Trenton N J
Proc U S Nat Mus —Proceedings of the U S National Museum Washington, D C
Przegl chir —Przeglad chirurgiczny (Surgical Review) Warsaw Poland
Psychotherapeut Praxis —Ceased publication
Pubbl d.stazione zool di Napoli —Pubblicazioni della stazione zoologica di Napoli Naples
Quaderni di psichiat —Quaderni di psichiatria Genoa, Italy
Quart Fed State M Bds —Quarterly of the Federation of State Medical Boards of the United States Easton Pa
Quart J Inebr —Quarterly Journal of Inebriety Hartford Conn
Quart M Clin —Quarterly Medical Clinics St Louis
Queen's M Quart —Queen's Medical Quarterly Kingston Canada
Quinzaine med —Quinzaine médicale de la France et de l'étranger Paris

Quinzaine thérap —Quinzaine thérapeutique Paris

Radiol Rev & Chicago M Rec —Radiological Review and the Chicago Medical Recorder Quincy Ill

Radium, Paris —Radium Paris

Railway Surg J —Railway Surgical Journal Chicago

Rap épidemiol, Soc d Nations See Epidemiol Rep League of Nations

***Rassegna di neurol veget** —Rassegna di neurologia vegetativa Borgognissanti 9 Firenze

Rassegna previd sociale —Rassegna della previdenza sociale [Ceased publication]

Rec d'opht Recueil d ophtalmologie Paris

Rec d trav chim d Pays-Bas —Recueil des travaux chimiques des Pays Bas Amsterdam

***Rec trav sc méd Congo belge** —Recueil de travaux de sciences médicales au Congo belge Direction du Service de l Hygiène Léopoldville Congo belge

Rep Brit A Adv Sc —Reports of meetings of the British Association for the Advancement of Science London

Rep Nat Quarantine Serv Reports National Quarantine Service Shanghai China [Ceased publication]

***Réunions méd -chir 1ère armée franç** —Réunions médico-chirurgicales de la 1ère armée française Numero special edite par l Algérie médicale et l Afrique française chirurgicale 3 rue Pélissier Alger

Rev anthrop —Revue anthropologique Paris

Rev argent de cien méd —Revista argentina de ciencias médicas Buenos Aires

***Rev brasil oftal** —Revista brasileira de oftalmología Rodrigo Silva 7-1° Andar, Rio de Janeiro

Rev de chir, Paris —Revue de chirurgie Paris

***Rev Cruz Roja colomb** —Revista de la Cruz Roja colombiana Organo del Comité central de la Cruz Roja nacional Apartado 1110 Bogotá

***Rev cubana tuberc** —Revista cubana de tuberculosis Organo oficial de la Sociedad cubana de tisiología Línea núm 51 esquina a N Vedado Habana

***Rev españ fisiol** —Revista española de fisiología Juan Jiménez Vargas Casanova 143 Barcelona

Rev españ de med y cir —Revista española de medicina y cirugía Barcelona Spain

Rev españ de urol y dermat —Revista española de urología y dermatología Madrid

Rev gén d'opht —Revue générale d ophtalmologie Paris

Rev de gynéc et de chir abd —Revue de gynécologie et de chirurgie abdominale Paris

Rev hebd de laryng —Revue hebdomadaire de laryngologie d otologie et de rhinologie Paris [Continued as Rev de laryng]

***Rev Hosp niño** —Revista del Hospital del niño Avenida Brasil Lima Peru

Rev d'hyg et de therap ocul —Revue d hygiène et de thérapeutique oculaires Paris [Continued as Rev internat d hyg et de thérap ocul]

Rev ibero-am de cien méd —Revista ibero-americana de ciencias médicas Madrid

***Rev Inst Adolfo Lutz** —Revista do Instituto Adolfo Lutz Avenida Dr Arnaldo 3 Sao Paulo

***Rev interam hosp** —La revista interamericana de hospitales See Hospital New York

Rev internat d hyg et de thérap ocul —Revue internationale d hygiène et de thérapeutique oculaire Paris

Rev internat de méd et de chir —Revue internationale de médecine et de chirurgie Paris. [Ceased publication]

Rev de laryng —Revue de laryngologie d otolog e et de rhinologie Paris

***Rev Liga puertorriq contra el cancer** —Revista de la Liga puertorriquena contra el cancer Organo de divulgación y propaganda educativa Apartado de Correo Núm 2468 San Juan Puerto Rico

Rev med-chir mal.foie —Revue médico-chirurgicale des maladies du foie, du pancréasrate Lyon

***Rev med y cien.afines Mexico** —Revista de medicina y ciencias afines Apartado Postal 8009 México D F

Rev de med y cir —Revista de medicina y cirugía Barcelona Spain

Rev de med y cir pract —Revista de med cina y cirugía prácticas Madrid

***Rev med exper ,Lima** —Revista de medicina experimental. Casilla 451 Lima

Rev med german ibero-am —Revista médica germano-ibero-americana Georg Thieme Rossplatz 12 Leipz g C 1 (Temporarily discontinued 1938)

Rev med d Hosp gen —Revista médica del Ho pital general Mexico D F

Rev de med e hyg mil —Revista de med cina e hyg ene mil tar Rio de Janeiro Braz l

Rev.med latino-am —Revista médica latino americana [Ceased publication]

Rev med ,Mexico —Revista méd ca Mexico D F

***Rev med Moyen-Orient** —La revue médicale du Moyen Orient Les Lettres françaises Beyrouth Lebanon

***Rev med d Paraguay** —Revista médica del Paraguay Organo oficial de la Sociedad de medicina y cirugía y especialidades 25 de Mayo y Tacuarí Asuncion

Rev med-quir —Revista médico-quirurgica Qu to Ecuador

***Rev med quir de pat fem** —Revista médico-quirurgica de patología femenina Bustamante 2531 Buenos Aires

***Rev med Rio Grande do Sul** —Revista de medicina do Rio Grande do Sul. Aven da Getúl o Vargas nº 577 Pôrto Alegre Brazil

Rev med de São Paulo —Revista medica de Sao Paulo Sao Paulo Braz l

Rev mens de gynec ,d obst et de pédiat —Revue mensuelle de gynécologie d obstétrique et de pédiatrie Paris

Rev mens d mal de l enf —Revue mensuelle des maladies de l enfance Paris

Rev mex de biol —Revista mexicana de biología Mexico D F

Rev v neuropsychopath —Revue v neuropsychopathologi therap i verejné hygiené a lékarství socialním Prague Czechoslovakia

***Rev nutricion** —Revista de nutricion Instituto nacional de nutric on D recc on general de salubridad Ministerio de salud publica y asistencia social Av Salaverry Lima

Rev d oto-neuro-opht —Revue d oto-neuro-ophtalmologie Paris

***Rev Policlin Valencia** —Rev sta de la Policlín ca Valencia Calle Libertad 151 Valencia Venezuela

Rev prat de biol —Revue pratique de b ologie appl quée à la clinique et à la thérapeutique Paris

Rev prat d hyg municip —Revue pratique d hyg ène munic pale urbaine et rurale Paris [Discontinued]

Rev prat d obst et de gynec.—Revue pratique d obstétrique et de gynécologie Paris

Rev de Radiol X —Revista de Rad olog a X Berlin

***Rev du rhum** —Revue du rhumat sme et des maladies osteo-art culaires L Expans on Scientifique França se 23 rue du Cherche-M di Paris 6e

***Rev Soc port estomatol** —Revista da Soc edade portuguesa de estomatologia Avenida da L berdade 65 1º Lisboa

Rev sud-am de méd et de chir —Revue sud américaine de médecine et de chirurgie Paris (Ceased publication 1935)

Rev de thérap med -chir —Revue de thérapeutique médico-chirurgicale Paris

***Rev urol ,Caracas** Revista de urología Organo de la Sociedad venezolana de urología Apartado 1 428 Caracas

Riv di antropol —Rivista di antropologia Rome

Riv di biol —Rivista di biologia Milan Italy

Riv clin di Bologna —Rivista clinica di Bologna Bologna Italy

Riv crit di clin med —Rivista critica di clinica medica Florence Italy

Riv d'ig e san pubb Rivista d igiene e sanità pubblica Rome

Riv internaz di terap fis —Rivista internazionale di terapia fisica Rome

Riv ital di neuropat Rivista italiana di neuropatologia psichiatria ed elettroterapia Catania

Riv med —Rivista medica Milan Italy

Riv di med leg ,Milan Rivista di medicina legale e di giurisprudenza medica Milan, Italy

***Riv oftal** —Rivista di oftalmologia I Salpietra Via delle Porte Nuove, 24 Firenze

Riv di psicol applic a pedagog Rivista di psicologia applicata alla pedagogia ed alla psicopatologia Bologna Italy

Roy London Ophth Hosp Rep Royal London Ophthalmic Hospital Reports

***Roy Melbourne Hosp Clin Rep** Royal Melbourne Hospital Clinical Reports Business Manager 14 Parliament Place Melbourne C 2

***Rozpr České Akad Věd a Umění** Rozpravy České Akademie Věd a Umění Series II (Matematicko-Přírodovědecká) Prague

Russk arch pat ,klin med i bakt —Russkiy archiv patologii, klinicheskoi meditsini i bakteriologii Leningrad

Russk j kozhn i ven bol – Russkiy jurnal kozhnikh i venericheskikh bolezneĭ Kharkov, U S S R

Russk vrach Russkiy vrach Leningrad

***Salub y asist.** Salubridad y asistencia Organo de la Secretaria de salubridad y asistencia Reforma y Lieja Mexico D F

Salubridad Salubridad Mexico D F

***Sat Eve Post** The Saturday Evening Post The Curtis Publishing Co , Independence Sq Philadelphia 6

Scalpel Scalpel Brussels Belgium

Schizofrenie —Ceased publication

Schmidt's Jahrb —Schmidt s Jahrbücher Leipzig

Schweiz.Bl f Gsndhtspflg —Schweizerische Blatter fur Gesundheitspflege Zurich Switzerland

Schweiz.Monatschr f prakt Med —Schweizerische Monatsschrift für praktische Medizin Berne Switzerland

***Schweiz Ztschr f Heilk** —Schweizerische Zeitschrift für Heilkunde Berne Switzerland*

***Scient Am** —Scientific American Munn & Co Inc 24 26 W 40th St New York 18

Scientia —Scientia Bologna Italy

Scritti biol —Scritti biologici raccolti da Luigi Castaldi Stabilimento Tipografico San Bernardino Siena

Semaine gynéc —Semaine gynécologique Paris

Semaine med —Semaine médicale Paris

Semana med españ.—Semana médica española Madrid

Settimana med d sper—Settimana medica dello sperimentale Florence, Italy

Siglo med—Siglo medico Madrid

Sitzungsb d k.Akad d.Wissensch Math-naturw Cl—Sitzungsbericht der kaiserlichen Akademia der Wissenschaften Mathematisch-naturwissenschaftliche Classe Vienna

Sitzungsb d math-phys Cl d k-bayer Akad.d Wissensch zu Munchen—Sitzungsberichte der mathematisch physikalischen Classe der koniglich bayerischen Akademie der Wissenschaften zu München Munich Germany

Skandinav.Arch f Physiol—Ceased publication

Smithsonian Misc.Collect—Smithsonian Miscellaneous Collections Washington D C

Soc med Havn collect—Societatis medicae Havniensis collectanea Havniae

South.California Pract.—Southern California Practitioner Los Angeles

South Clin—Southern Clinic Richmond Va

Southwest J.Med & Surg—Southwest Journal of Medicine and Surgery El Reno Okla

Southwestern Med—Southwestern Medicine El Paso Texas (Ceased publication)

Sovet.klin—Sovetskaya klinika Moscow

Sovet.vestnik venerol i dermat—Sovetskiy vestnik venerologii i dermatologii Moscow

Sovet.vrach zhur—Sovetskiy vrachebniy zhurnal Leningrad (Ceased publication)

Soziale Med u.Hyg—Soziale Medizin und Hygiene Hamburg Germany

St.Barth.Hosp J,War Ed—St Bartholomew's Hospital Journal War Edition London (Ceased publication)

St.Louis Clinique—St Louis Clinique

St.Louis Courier Med—St Louis Courier of Medicine (Merged in Interstate M J)

St.Paul M J—St Paul Medical Journal

St.Petersburg med Wchnschr—St Petersburger medicinische Wochenschrift Leningrad (Continued as St Petersburg med Ztschr)

St Petersburg med Ztschr—St Petersburger medizinische Zeitschrift Leningrad

St.Thomas's Hosp Rep—St Thomas's Hospital Reports St Thomas's Hospital Westminster Bridge London S E 1 (Temporarily suspended)

Surg J—Surgical Journal Chicago (Combined with Internat J Med & Surg)

Svenska läk.-sallsk forhandl—Svenska lakare sallskapets forhandlingar Stockholm Sweden

***Tabulae biol**—Tabulae biologicae Uitgeverij Dr W Junk, Amsterdam

Texas M J—Texas Medical Journal Austin

***Therap clin**—Thérapeutique clinique organisée par la Clinique thérapeutique universitaire de Genève (première et deuxième journées) Albert Skira Genève

Therap Gaz—Therapeutic Gazette Detroit Mich (Discontinued March 1927)

Therap Monatsh.—Therapeutische Monatshefte Berlin

Therap Neuheiten—Therapeutische Neuheiten Leipzig

Tidsskr f d norske lægefor—Tidsskrift for den norske lægeforening Oslo Norway

Tijdschr v sociale hyg—Tijdschrift voor sociale hygiene en hygienische bladen Zwolle, Netherlands

Toledo M & S Reporter—Toledo Medical and Surgical Reporter

***Torreón med**—Torreón médico Organo oficial de la Asociacion médica de la Laguna Esquina Hidalgo y Rodriguez Torreón Coah México

Tr A Resid & Ex-Resid Physicians,Mayo Clin—Transactions of the Association of Resident and Ex Resident Physicians of the Mayo Clinic Owatonna Minn

Tr Am A Obst & Gynec —Transactions of the American Association of Obstetricians and Gynecologists Philadelphia

Tr Am Bronch Soc Transactions of the American Bronchoscopic Society Chicago

Tr.Am Climat & Clin.A —Transactions of the American Climatological and Clinical Association Philadelphia

Tr Am Dermat.A —Transactions of the American Dermatological Association

Tr.Am Orthop.A —Transactions of the American Orthopedic Association Philadelphia

Tr Am Pediat Soc —Transactions of the American Pediatric Society Chicago [Ceased publication]

Tr Am Proct Soc —Transactions of the American Proctologic Society New York

Tr Clin Soc London —Transactions of the Clinical Society of London [Continued in Proc Roy Soc Med]

Tr Illum Engin Soc. —Transactions of the Illuminating Engineering Society Easton Pa

Tr M Soc New York —Transactions of the Medical Society of the State of New York

Tr New York M A —Transactions of the New York State Medical Association

Tr Ophth Soc Australia —Transactions of the Ophthalmological Society of Australia (British Medical Association) Sydney

***Tr Pacific Coast Soc Obst & Gynec** —Transactions of the Pacific Coast Society of Obstetrics and Gynecology Western Journal of Surgery Publishing Co Portland Ore

Tr Path Soc London —Transactions of the Pathological Society of London [Continued in Proc Roy Soc Med]

Tr Roy Canad Inst —Transactions of the Royal Canadian Institute Toronto

Tr Roy Soc Edinburgh —Transactions of the Royal Society of Edinburgh

Tr Sect Dermat & Syph ,A M A —Transactions of the Section on Dermatology and Syphilology of the American Medical Association Chicago [Ceased publication]

Tr Sect Laryng ,Otol & Rhin ,A M A Transactions of the Section on Laryngology Otology and Rhinology American Medical Association Chicago [Ceased publication]

Tr Sect Obst ,Gynec & Abd Surg ,A M A —Transactions of the Section on Obstetrics Gynecology and Abdominal Surgery of the American Medical Association Chicago [Ceased publication]

Tr Sect Pediat ,A M A —Transactions of the Section on Pediatrics American Medical Association Chicago [Ceased publication]

Tr Sect Practice Med ,A M A —Transactions of the Section on Practice of Medicine of the American Medical Association Chicago [Ceased publication]

Tr Sect Surg ,Gen & Abd ,A M A —Transactions of the Section on Surgery General and Abdominal of the American Medical Association Chicago [Ceased publication]

Tr Sect Urol ,A M.A —Transactions of the Section on Urology of the American Medical Association Chicago [Ceased publication]

Tr South Surg & Gynec.A —Transactions of the Southern Surgical and Gynecological Association

***Trab Inst Cajal invest biol** —Trabajos del Instituto Cajal de investigaciones biológicas Madrid

Trav du lab d recherches biol de l'Univ de Madrid —Travaux du laboratoire des recherches biologiques de l Université de Madrid

Tribuna med —Tribuna medica Rio de Janeiro Brazil

Tribune méd —Tribune médicale Paris

Tribune méd ,Am ed —Tribune médicale American edition New York [Continued as M Tribune]

Tri-State M J —Tri-State Medical Journal Shreveport La [Ceased publication]

Umbria med —Umbria medica rivista di medicina e scienze Terni Italy

Ungar med Presse —Ungarische medizinische Presse Budapest

Univ California Publ ,Pub Health —University of California Publications in Public Health Berkeley

Univ M Mag —*University Medical Magazine Philadelphia* [Continued as Univ Pennsylvania M Bull]

Univ Pennsylvania M Bull —University of Pennsylvania Medical Bulletin Philadelphia

Univ Toronto M J —University of Toronto Medical Journal

***Urologia** —Urologia Organo ufficiale della Società italiana di urologia Via Paris Bordone 1, Treviso, Italia

Verhandel d k Akad v Wetensch —*Verhandelingen der koninklijke Akademie van* Wetenschappen Amsterdam

Verhandl d deutsch Gesellsch f Chir —Verhandlungen der deutschen Gesellschaft fur Chirurgie Berlin

Verhandl d deutsch Kong f inn Med —Verhandlungen des deutschen Kongresses fur innere Medizin Wiesbaden Germany

Verhandl d deutsch path Gesellsch —Verhandlungen der deutschen pathologischen Gesellschaft Jena, Germany

Verhandl d Kong f inn Med —Verhandlungen des Kongresses fur innere Medizin Wiesbaden, Germany [Continued as Verhandl d deutsch Kong f inn Med]

Verhandl d Ver f inn Med zu Berlin —Verhandlungen des Vereins fur innere Medicin zu Berlin

Vermont M Monthly —Vermont Medical Monthly Burlington

Vermont Med —Vermont Medicine Rutland

Vestnik rentgen i radiol —Vestnik rentgenologii i radiologii Leningrad

Vestnik ushn ,gorl i nos bol —Vestnik ushnikh gorlovikh i nosovikh bol eznei (Courier of Diseases of the Ear Throat and Nose) Leningrad

***Vida med** —Vida médica Rua Barão de Itambi 31 Rio de Janeiro

Virginia Clin Rec —Virginia Clinical Record Richmond

Virginia M Semi-Monthly —Virginia Medical Semi Monthly Richmond

***Vitamins & Hormones** —Vitamins and Hormones Advances in Research and Applications Academic Press Inc 125 E 23rd St New York 10

Voyenno-med j —Voyenno meditsinskii journal Leningrad

Vrach —Vrach Leningrad

Vrach gaz —Vrachebnaya gazeta Leningrad

Vrtljschr f gerichtl Med —Vierteljahresschrift fur gerichtliche Medicin und offentliches Sanitatswesen Berlin

Vrtljschr f d prakt Heilk —Vierteljahresschrift fur die praktische Heilkunde Prague Czechoslovakia

Vrtljschr f prakt Pharm —Vierteljahresschrift für praktische Pharmacie Berlin

War Med —War Medicine Chicago 10 [Ceased publication]

Washington M Ann —Washington Medical Annals Washington *D C*

[illegible] Wochenschrift fur Therapie und Hygiene des [illegible]

[illegible] Journal Lagos [Ceased publication]

West Canada M J —Western Canada Medical Journal Winnipeg

West Druggist —Western Druggist Chicago

West London M J —West London Medical Journal
West J Surg —Western Journal of Surgery Obstetrics and Gynecology Portland, Ore
West M News —Western Medical News Regina Canada
West M Rev —Western Medical Review Lincoln Omaha Neb
West M Times —Western Medical Times Denver Colo
Wien klin Rundschau Wiener klinische Rundschau Vienna
Wien med Bl —Wiener medizinische Blätter Vienna
Wien med Presse —Wiener medizinische Presse Vienna
Woman's M J Woman's Medical Journal Toledo Ohio
Women in Med —Women in Medicine (Ceased publication)
***Yale Rev** —The Yale Review Drawer 1729 New Haven Conn
Zahnarztl Rundschau —Zahnärztliche Rundschau Berlin
Zentralbl See also Centralbl
Zentralbl f allg Path u path Anat Zentralblatt für allgemeine Pathologie und pathologische Anatomie Jena Germany
Zentralbl f d ges Chir u Grenzgeb —Zentralblatt für die gesamte Chirurgie und ihre Grenzgebiete Berlin
Zentralbl f d ges Gynaek u Geburtsh —Zentralblatt fur die gesamte Gynaekologie und Geburtshilfe sowie deren Grenzgebiete Berlin
Zentralbl f d ges inn Med u d Grenzgeb —Zentralblatt fur die gesamte innere Medizin und deren Grenzgebiete Berlin
Zentralbl f d ges Physiol u Path d Stoffwechs —Zentralblatt für die gesamte Physiologie und Pathologie des Stoffwechsels mit Einschluss der experimentellen Therapie Berlin Vienna
Zentralbl f Nervenh u Psychiat Zentralblatt fur Nervenheilkunde und Psychiatrie Coblenz Germany Leipzig
Zentralbl f Physiol Zentralblatt für Physiologie Leipzig Vienna
Zentralbl f Rontgenstrahlen Zentralblatt fur Röntgenstrahlen Radium und verwandte Gebiete Wiesbaden Germany
***Zoologica** Zoologica Scientific Contributions of the New York Zoological Society 630 Fifth Ave New York 20
Ztschr f allg Physiol Zeitschrift für allgemeine Physiologie Jena Germany
Ztschr f anal Chem Zeitschrift fur analytische Chemie Wiesbaden Germany
Ztschr f ang Anat —Zeitschrift für angewandte Anatomie und Konstitutionslehre Berlin
Ztschr f ang Psychol —Zeitschrift für angewandte Psychologie und psychologische Sammelforschung Leipzig
Ztschr f Balneol ,Klimat —Zeitschrift für Balneologie Klimatologie und Kurort Hygiene Berlin
Ztschr f Bekampf d Geschlechtskr —Zeitschrift für Bekämpfung der Geschlechtskrankheiten Leipzig
Ztschr f Chemotherap — Zeitschrift fur Chemotherapie und verwandte Gebiete Leipzig
Ztschr f exper Path u Therap —Zeitschrift für experimentelle Pathologie und Therapie Berlin
Ztschr f gerichtl Med —Zeitschrift fur gerichtliche Medicin öffentliche Gesundheitspflege und Medicinalgesetzgebung Vienna [Merged in Allg Wien med Ztg]
Ztschr f Gesundhverwalt u Gesundhfurs —Zeitschrift für Gesundheitsverwaltung und Gesundheitsfürsorge Berlin (Ceased publication)
Ztschr f Gewerbe-Hyg —Zeitschrift für Gewerbe-Hygiene Vienna

Ztschr f Heilk —Zeitschrift für Heilkunde Berlin Vienna

Ztschr f Laryng ,Rhin —Zeitschrift fur Laryngologie Rhinologie und *ihre Grenzgebiete* Leipzig

Ztschr f Ohrenh —Zeitschrift fur Ohrenheilkunde Wiesbaden Germany

Ztschr f padagog Psychol —Zeitschrift fur padagogische Psychologie experimentelle Padagogik und jugendkundliche Forschung Leipzig

Ztschr f Pathopsychol —Zeitschrift für Pathopsychologie Leipzig

Ztschr f Pflanzenkr —Zeitschrift fur Pflanzenkrankheiten Stuttgart Germany

Ztschr f phys u diatet Therap —*Zeitschrift fur physikalische und diätetische Therapie* Leipzig

Ztschr f Psychotherap u med Psychol —Zeitschrift fur Psychotherapie und medizinische Psychologie Stuttgart Germany

Ztschr f rat Med —Zeitschrift für rationelle Medizin Zurich Switzerland

Ztschr f Sauglings- u Kleinkinderschutz —Zeitschrift fur Säuglings und Kleinkinderschutz Berlin

Ztschr f Sexualwissensch —Zeitschrift fur Sexualwissenschaft und Sexualpolitik Berlin

Ztschr f soziale Med —Zeitschrift fur soziale Medizin Medizinalstatistik Arbeiterversicherung soziale Hygiene und die Grenzfragen der Medizin und Volkswirtschaft *Leipzig*

Ztschr f Tiermed —Zeitschrift fur Tiermedizin Jena Germany

Ztschr f Tuberk —Zeitschrift für Tuberkulose Leipzig

Ztschr f Tuberk u Heilstattenw —Zeitschrift für Tuberkulose und Heilstattenwesen Leipzig [Continued as Ztschr f Tuberk]

Ztschr f Untersuch d Nahrungs- u Genussmittel —Zeitschrift fur Untersuchung der Nahrungs- und Genussmittel sowie der Gebrauchsgegenstande Berlin

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Page numbers set in boldface refer to illustrations

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